annual report

Annual Report 1982-1983

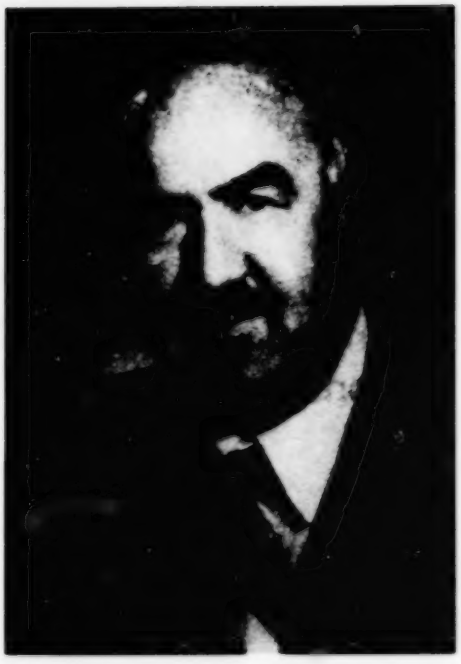
for the
fiscal year
ending
March 31, 1983

Ministry of
Transportation and
Communications

To: The Honourable John B. Aird,
O.C., Q.C., L.L.D.
Lieutenant-Governor of the Province of Ontario

MAY IT PLEASE YOUR HONOUR:
The undersigned takes pleasure in laying before you the Annual Report for the Ministry of Transportation and Communications for the fiscal year ending March 31, 1983.

Respectfully submitted,



James Snow
Minister

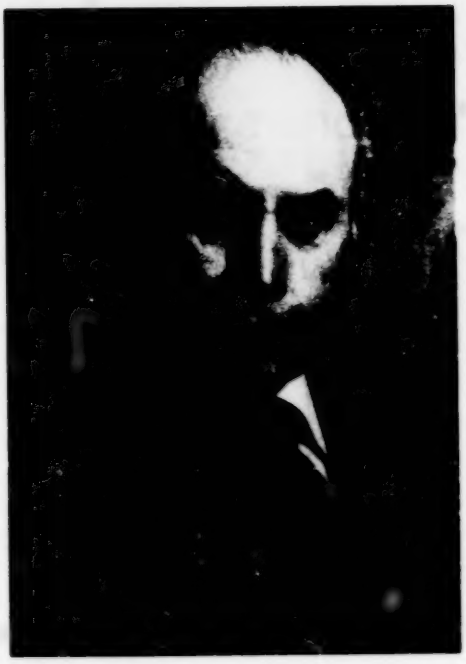
To: The Honourable James Snow
Minister of
Transportation and Communications

Sir:

I have the honour to present the report of the activities of the Ministry of Transportation and Communications for the fiscal year ending March 31, 1983.

Respectfully submitted,

Harold Gilbert



Harold Gilbert
Deputy Minister

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Deputy Minister's Summary

I'm very pleased to report that MTC employees continued to work industriously and with innovation to deliver a multitude of transportation and communications services across Ontario during the year, despite a slow country-wide economic recovery.

And, I should add, that additional funding from the Ontario government's Board of Industrial Leadership (BILD) and the province's Employment Stimulation Program (OESP) helped buoy MTC programs while providing increased employment opportunities.

Highways

During 1982-83, MTC was gearing up for the biggest project of the decade — the twinning of the Burlington Bay Skyway — with the award of four contracts for arterial roadwork, preliminary to the primary structure contract.

Highway and freeway construction forged ahead strongly with an overall expenditure of $258,412,355. An additional $183,073,107 was allotted to municipal roads' construction.

Of the total highway expenditure, $187,384,444 was spent on maintenance of the King's Highway network. MTC constructed or rebuilt some 877 km of the system, primarily on two-lane highways, including construction of 59 bridges. Work on multi-laned divided highways totalled 110 km.

Another $25 million in BILD funds greatly helped spur vital freeway construction in southern Ontario's Golden Horseshoe, while another $60.5 million in OESP aid was applied to provincial highway and municipal road projects.

Several important freeway projects were completed including the 98-km Highway 402, Sarnia to London; the 22-km Highway 403 link — QEW to Highway 401; and six-laning of Highway 401 easterly to Highway 35/115 interchange.

Other significant projects included: the new Norris Whitney Bridge on Highway 14 south of Belleville; the Pembroke/Highway 17 Bypass; and the upgrading of Highway 400 as a controlled-access freeway to just south of Coldwater.

And work continued on the E.C. Row Expressway in Windsor; Highway 404 to Newmarket; Highway 403 to Woodstock; Highway 406 in St. Catharines; the Highway 410/Brampton Bypass; Highway 427 north from 401 and the widening of Highway 401 west from Toronto.

In northern Ontario, progress continued on the Highway 11/Callander Bypass and the initial contract for the Sudbury N.W. Bypass was awarded late in the year.

Construction was also underway on the four-laning of the Thunder Bay Expressway and the Highway 17/Kenora Bypass.

Transportation Programs

MTC's emphasis on public transit continued with subsidies to Ontario municipalities totalling $100,046,000 against operations and $70,500,000 in capital assistance.

In a significant move, the minister announced plans to build a comprehensive inter-regional transit system to serve the Oshawa-to-Hamilton corridor, using Advanced Light Rail Transit technology (ALRT) developed by the Urban Transportation Development Corporation (UTDC).

This 20-year project will provide commuter service for the Metro-centred area of southern Ontario as well as becoming a showcase for provincially-based transportation technology.

During 1982-83 a total of 68 municipal transit systems received financial assistance. As well, municipalities introducing new rapid transit facilities were eligible to receive special subsidies for their initial years of operation.

Construction of Metro Toronto's Scarborough Intermediate Capacity Transit System (ICTS) started in 1982, using technology developed by UTDC.

Construction of the Region of Ottawa-Carleton's exclusive busways continued. In addition, there was financial and technical assistance to municipalities undertaking transit studies.

Early in 1983, three years of operational testing began on the 53 articulated buses developed in conjunction with General Motors. These buses are operating in Toronto, Hamilton, Ottawa and Mississauga.

Assisted by BILD funding, development of an automated Transit Information/Communication and Control System (TICSS) was carried out, using the latest microprocessor technology. Testing took place in four communities.

As well, a comprehensive review of subsidy assistance to municipalities for transportation of the disabled began. Initiatives to improve services for the disabled included a model parking bylaw and special vehicle plates. MTC's municipal transportation subsidy for the disabled totalled $5.5 million.

Air Services

MTC's air office continued to monitor the extent and quality of commercial passenger air services in Ontario, assessing each application submitted to the Canadian Transport Commission; some 600 applications were reviewed and the office responded to the CTC on 21.

Ontario agreed to purchase two de Havilland Dash 8 passenger aircraft for use by norOntair. MTC, MNA and ONTC co-ordinated efforts to finalize deployment of the aircraft and award a contract for their operation to a private carrier.

Two remote airports were under construction in northern Ontario during the year, with 18 in operation. Capital funding came through MNA and maintenance dollars via MTC.

MTC's municipal subsidy program in northern and southern Ontario, supplemented by BILD funding was made available to 46 municipalities, 40 of which either had airports in operation or under construction.

We also offered guidance to municipalities on airport design, operation and maintenance.

Air office staff continued its involvement in implementing the Ministry of Health's system of medical emergency heliports at many hospitals.

Marine Services

During the year, marine office staff maintained contact with the federal government, studying and preparing responses on marine issues affecting Ontario.

Several projects were underway in response to specific recommendations adopted by the cabinet, following the Great Lakes/Seaway Task Force report.

These included a study to develop a commercial promotion program for the Great Lakes Seaway system in co-operation with MTC's goods distribution systems office and the Ontario International Corporation.

In addition, Ontario's strategy for port development was the object of a joint federal/provincial study carried out by a consultant.

To increase public awareness of the marine system in Ontario, a promotional information film "Inward Passage" was commissioned.

Rail Services

Rail office personnel were involved in a number of programs, including branch line rationalization; review of the quality and level of passenger services; regulatory activities; freight issues; promotion of intermodal station and service development and safety issues.

Two important development were

the re-introduction of direct passenger service between Toronto and Chicago by VIA Rail and the start of a study of passenger service requirements in northeastern Ontario — in co-operation with MNA and ONTC.

MTC representatives also attended Canadian Transport Commission regulatory hearings on behalf of the province regarding the potential abandonment of CN's Beeton and Renfrew subdivisions. As well, a number of outstanding abandonment applications were reviewed.

The office continued investigation of acquiring abandoned rail corridors either for MTC or for other government agencies for use in formulation of provincial master rail plan. Staff also continued participation in the planning to electrify GO Transit's lakeshore commuter rail service.

Research

Research and development activities were wide ranging, with activities centred on ways to improve the performance of the highway system, the application of new technology to maintenance and rehabilitation as well as energy conservation.

Structural staff continued to revise the new Ontario Highway Bridge Design Code with publication anticipated in the fall of 1983. The new code embodies the latest design guidelines as well as up-to-date testing procedures.

In materials research, four cathodic protection systems were designed and installed on the substructure of the Burlington Bay Skyway to test their efficacy. Investigation also demonstrated that radar scanning and thermography offer dramatic improvements in the ability to diagnose bridge deck problems.

Earth and environmental staff developed new testing methods for aggregates which were simpler and cheaper to perform, yet gave better indications of field performance.

As well, a report summarizing the use of de-icing chemicals and their environmental impacts was published.

Highway environmental research involved a variety of projects relating to pavement noise, illumination and noise barriers.

Transportation technology and energy research focused on improving the energy efficiency of transportation and reduction of the use of petroleum-based fuels.

Under the Transportation Energy Management Program (TEMP), a joint venture with the Ministry of Energy, MTC conducted research into promotion of propane as an alternative fuel; evaluation of vehicles powered by compressed natural gas (CNG); and vehicles using methanol fuels.

In addition TEMP promoted energy saving concepts such as vanpooling, commuter carpooling and construction of commuter parking lots at major freeway interchanges.

Control system research staff was active in assessment of fibre optics technology for the proposed Highway 401 freeway traffic management system.

Trucks and Buses

Towards the end of the fiscal year, both the Ontario Committee on Truck Safety and Public Commercial Vehicle Act Review Committee were preparing final recommendations.

The OCTS committee's mandate allowed it to investigate all matters pertaining to truck safety, including driver and vehicle standards; rules of the road; enforcement; and public and industry views.

The PCV Review Act Committee issued an interim report in the autumn of 1982 indicating strong support for the reform of trucking legislation, especially the need to reduce the complexity of regulations while stiffening enforcement.

Truck transportation office staff maintained liaison with industry organizations, other ministries, and the federal government. They also developed proposals for reform and refinements to the PVC Act, PV Act and HTA as well as providing support for the PCV Act Review Committee.

Activities of the bus transportation office included negotiations of a reciprocal agreement for bus safety inspections with New York State; implementation of a mechanism for approval of bus tariffs under the administered prices program; and initiation of an Ontario bus committee to study the inter-city transportation of passengers in rural areas and major corridors.

Drivers and Vehicles

Most important highlight during the year was the changeover to a $12-million computerized "Plate-to-Owner" vehicle licensing system which took place on December 1, 1982.

This involved installation of more than 1,300 video terminals and printers in MTC Offices as well as licensing agents' offices across the province.

Advantages included staggered renewals keyed to a vehicle owner's birthdate; fast vehicle permit replacement by agents and denial of registration for failure to pay parking fines.

The new system also shifted the onus for reporting the sale of a vehicle and re-registration to the purchaser as well as making the updating and retrieval of information more efficient.

As part of the project, a complete re-organization of the drivers and vehicles division took place during the year, involving separation of the services and production sections. This was also in preparation for a planned relocation to Kingston by licensing operations staff scheduled for late April, 1983.

Highlighting changes and additions to the HTA were: tougher school bus stopping legislation and new child restraint legislation.

The Motorized Snow Vehicles Act was also amended to give snowmobile clubs the authority to issue snow vehicle operators licences.

Another important highlight during the year was MTC's participation in an inter-ministerial task force set up by the Ministry of the Attorney General to investigate ways to reduce drinking and driving.

In July, 1982, the new John Rhodes driver exam centre went into operation, replacing four area driver exam operations, including the Downsview location.

Year-end statistics indicated another sizeable reduction in fatalities on Ontario highways and roads, from 1,445 in 1981 to 1,138 in 1982, representing a 21.2 per cent decline.

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The following is a summary of expenditures reported by the financial comptroller for the fiscal year 1982-83, with comparative figures for the preceding year.

	Fiscal Year Ending	
	March 31, 1982	March 31, 1983
Ministry Administration	$ 36,357,186	$ 39,014,427
Policy Planning & Research	12,607,880	10,474,416
Safety & Regulation	53,238,593	66,997,237
Provincial Highways	499,448,732	540,186,767
Provincial Transit	81,473,563	97,564,400
Provincial Transportation	4,829,264	6,453,109
Municipal Roads	455,527,976	483,706,656
Municipal Transit	176,267,014	198,967,992
Communications	2,353,816	2,172,149
Total Gross Expenditure	$1,322,704,024	$1,445,526,153

Deputy Minister's Office

MTC staff promote teleconferencing

Communications Division

The Communications Division continued to promote the interests of Ontario's communications users through the development of responsive policies on broadcast, cable and telecommunications matters.

Staff equally promoted strong communications manufacturing and supply industries through the development and implementation of measures designed to enhance the economic and industrial needs of the province.

During the past year the division has:

Represented the needs and interests of Ontario consumers of telecommunications services before the Canadian Radio-Television and Telecommunications Commission (CRTC) on the following issues:

- implications of proposed Bell Canada reorganization;
- costing methodologies for telecommunications services;
- Telesat's interim rates for parties leasing channels to provide satellite services via the Anik C satellite;
- tiering of cable services, whereby cable operators would group existing and new services, such as pay-TV, into different-priced packages for cable subscribers;
- the introduction of a universal or mandatory Canadian pay-TV service; and
- the licensing of Master Antenna Television (MATV), as an alternative means of delivering broadcast services.

Ontario's policy positions were presented to the federal government on the following matters:

- the development and licensing of cellular mobile radio services;
- the introduction of AM stereo broadcast services; and,
- the recently announced national broadcast strategy, which includes major policy changes previously advocated by Ontario, including, the elimination of licensing requirements to own and operate receiving dishes and the distribution of new programming and information services on cable.
- Presented comments to the Parliamentary Standing Committee on Communications and Culture, with respect to the Applebaum-Hebert Committee's recommendations on broadcasting.
- Participated in a national steering committee to determine Canada's activities in recognition of designation by the United Nations of 1983 as World Communications Year. A joint government/industry proposal to develop a unique telecommunications service for a third world country has been accepted and work is proceeding to investigate an application of the system.
- Participated in the Canadian Standards Association steering committee on telecommunications to develop national technical standards for telecommunications equipment.
- Continued to promote the benefits of teleconferencing and assist government and the private sector in implementing teleconferencing systems; information and assistance was provided to over 1,000 Ontario companies and a majority of ontario ministries are now using some form of teleconferencing.
- Developed modern revisions to existing legislation that pertains to telephone services in Ontario.
- Continued to provide operational, policy and technical advice to the Ontario Telephone Services Commission, which is responsible for regulating the independent telephone companies under Ontario's jurisdiction.
- Participated in the federal-provincial Conference of Communications Ministers, held in May at Calgary, and a federal provincial task force on joint regulatory mechanisms.
- Headed an interministerial committee which developed specific recommendations for a proposed microelectronics public awareness program in Ontario.
- Provided technical assistance concerning communications application of coaxial cable and fibre optics for traffic management systems.
- Provided operational and technical coordination for Ontario government mobile radio communications in conjunction with federal Department of Communications project with MSAT (Mobile Satellites).

Management Improvement Branch

The mandate for this is to maximize utilization of MTC resources through improvement of management organization, systems, procedures and practices.

In these economic times of decreasing budgets, branch expertise available has been called on in increasing frequency by the deputy minister and other senior management to advise and assist on specific management and organization/system problems.

In fiscal year 82/83 staff provided support to the D-M for MTC's strategic reorganization, announced in July 1982. This clearly reaffirmed the functional responsibilities envisioned by the deputy minister — head office being responsible for strategic direction, policy planning, program development and functional expertise and direction, with regional district offices responsible for program delivery.

Detail organization changes have resulted from this strategic direction. Recognizing the importance of protecting our capital investment (roads, structures, etc.), the D.M. commissioned staff to review the maintenance organization to accommodate its expanded role. Study results to date have produced a draft statement regarding a definition of maintenance.

Personnel completed a study of MTC's Internal Audit Branch. Highlights included transfer of various line operations from audit to the appropriate head office functional or regional units: the introduction of a ministry audit committee which will formally involve senior management in the audit planning process and the adoption of comprehensive audit.

One of the many recommendations resulting from the study of the MTC human resource services was to review the Management Employee Group (MEG) activities. At the request of the D-M, the staff is assessing the results of employee surveys and interviews to help determine MEG's future. Recommendations will be presented to the ministry's Strategic Policy Committee (SPC) for consideration.

Branch staff conducted a regional planning and design study. Organization structures, operating procedures, management and production processes were compared and evaluated. Recommended models have been developed for provincial application.

SPC directed staff to coordinate the preparation of a report to Management Board of Cabinet related to the management standards project. It assessed the ministry's current management practices and processes against published standards. It also outlined MTC's implementation plan to address the process improvements identified during the study.

Staff continued to monitor implementation of the performance budgeting management information system; completed the plan to restructure various organization units within the safety and regulations program; provided assistance for the Kingston relocation and reorganization project, evaluated a supply and services pilot study in Eastern Region and prepared a new mandate and role for the newly structured operations committee.

Affirmative Action Program

The mandate of the Affirmative Action Program (AAP) is to raise and diversify the occupational distribution of women.

AP staff planned and managed MTC's affirmative action plan. Emphasis was on coordination of career development initiatives to increase the number of women qualified to compete in under-represented positions. In these and other initiatives, staff worked with MTC managers who annually plan and report on affirmative action initiatives in their areas.

Activities implemented during the past year are highlighted below:

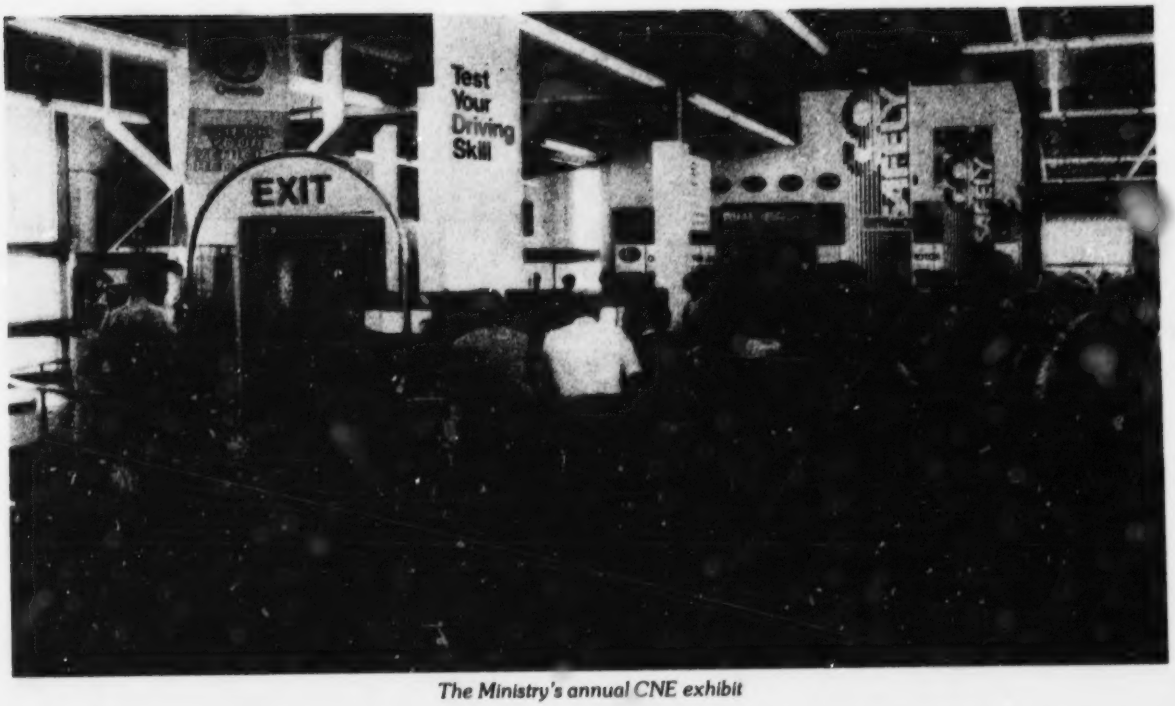
- 77 developmental assignments completed under the accelerated career development program; 15 were initiated through the Affirmative Action Incentive Fund;
- established a computer application training program whereby a minimum of four women annually receive six to eight months training;
- coordinated developmental opportunities for women with the potential and interest to progress into entry and middle management level position;
- conducted 85 career and work related counselling sessions with female staff;
- participated on the government Affirmative Action Council Executive and a task force that delivered workshops on "The Changing Workplace" to regional female staff;
- sponsored an affirmative action conference for approximately 70 unit representatives and council members;
- provided technical assistance to the affirmative action network; and,
- disseminated information on career planning and women's issues to female staff.

Strategic Policy Secretariat

Secretariat staff provided support to the deputy minister to ensure the effective operation of the Strategic Policy Committee (SPC); that improvements are made, where appropriate, in the strategic planning and management process.

During the fiscal year 1982/83 personnel were involved in the following activities:

- Routine management of SPC business, the ministry's senior executive committee;
- Provision of administrative support for the resources management committee, the senior committee responsible for overall management of resources;
- Maintenance of effective liaison with the central agencies of government and other ministries on behalf of MTC;
- Introduction of changes in the strategic planning process to ensure more streamlined and effective operation;
- Organized and managed the strategic policy development and planning process including: obtaining feedback from industry representatives and organizations on problems and outlooks; presentation of program position and prospects papers; and organizing a "strategy think-in" to consider the ministry's strategic directions;
- Organized the spring senior management conference;
- Edited and printed "Strategic Management at MTC", containing the strategic directions for the period 1984-1989;
- Organized meetings with program coordinators and program chairmen to review and coordinate the strategic planning process;



The Ministry's annual CNE exhibit

Public & Safety Information Branch

Branch staff were responsible for MTC's internal and external communications programs, including liaison with the news media — radio, TV and print.

More than six million pieces of safety-related information materials were produced and delivered during the fiscal year, including brochures, pamphlets, booklets, posters and periodicals such as the Driver's Handbook.

Branch personnel also produced safety curriculum materials for all Ontario public and separate schools and high school driver courses in secondary schools.

As well, staff produced the bi-monthly Ontario Traffic Safety Bulletin, the monthly publication, MTC News, and Working Together, MTC's affirmative action newsletter. Information officers also wrote in-house radio and TV commercials; A/V scripts; and produced display advertising for newspapers and magazines.

In addition staff counselled other divisions and branches on public relations activities, including the editing and publication of informational materials for the TEMP Program.

During the year, audio-visual staff produced several films and commercials (English and French) for distribution to schools, police forces, TV stations and the public.

Films included: The DriveSave Zone, a 23-minute film about fuel economy; A Tribute to Terry Fox, commemorating the unveiling of the monument near Thunder Bay; Life is Precious, a 14.5-minute film promoting child restraints; and a film about segmental bridges.

Staff filmed a 60-second commercial on drinking and driving on behalf of the Ministry of the Attorney General; a commercial re MTC's new Plate to Owner licencing system and 60-second commercials based on the DriveSave Zone and Life is Precious.

Audio-visual staff also produced MTC's annual Ontario On the Move film.

Altogether, the A/V section produced 37,000 black and white photographs, 45,000 slides and two slide shows for ministry use.

Information staff researched and wrote 92 speeches and statements for the minister, deputy minister and other senior staff. Production of news releases, both general and contract award, totalled 372.

Other staff responsibilities included the organization of official functions for the minister, including the unveiling ceremony for the Terry Fox Monument near Thunder Bay; opening of the new John Rhodes Driver Examination Centre at Malton; opening of the new Highway 402, Sarnia-to-London; christening of the new Norris Whitney Bridge south of Belleville; and new section of Highway 403, Ford Drive to Highway 401.

Staff also organized several important news conferences for the minister during the year.

Displays included MTC's annual CNE exhibit, a changeable message sign display at Ontario Place; a display at Inter-Air '82; and the updating of the Safety Caravan, sent to fall fairs and winter carnival events.

Over the past 12 months information staff also answered over 120,000 telephone requests for up-to-date road information; responded to 123,000 requests for general information and replied by mail to another 1,550 enquiries.

— Coordinated MTC's response to briefs, submissions and some letters received from associations and the public in regard to transportation and communications matters; and,

— Managed various special projects of a corporate concern such as Bicentennial 1984 and freedom of information.

In February 1983, staff was reorganized to include the outlooks office, formerly the transportation outlooks office. Work continued on scanning the external environment for social, economic, political and technological developments and their implications for future directions in transportation and communications. Seven scenarios to the year 2000 were prepared by individual experts on a number of broad themes important to the development of Ontario.

Municipal transportation division staff managed the ministry's municipal transfer payment programs which assist municipalities in the development and operation of their transit systems and construction, rehabilitation and maintenance of their road systems.

Personnel provided guidance and expertise to municipal authorities in identifying their transit and road needs and developed a fair and equitable distribution of the subsidy funds made available by the legislature to meet those needs. They also carried out verification procedures to ensure that legislative and policy requirements were met.

The division was supported in the managing and monitoring of the ministry's municipal roads subsidy program by the staff of the regions and districts.

Municipal Roads Office

Staff of the municipal roads office were responsible for program planning, policy development and evaluation, and the overall administration of all municipal road subsidy programs.

Municipal Roads Programs

During the 1982-83 fiscal year, road grants were provided to 843 municipalities and 41 indian reserves under the Public Transportation and Highway Improvement Act.

In support of the province's energy conservation program, funds were also provided under special agreement to the regions of Durham and Waterloo and to cities of Brantford and Mississauga for development and implementation of computerized traffic signal systems to improve the traffic flow. In addition, 34 municipalities received subsidy for the installation of traffic signals.

Funds were provided, under agreement, toward the operating deficits of seven municipal ferry servies.

The distribution is shown below:

Highway Connecting Link Program

There were 888 km of municipal roads covered by connecting link agreements. MTC funded 89 agreements with a total expenditure of $15,083,915. An additional $1,903,007 was spent on maintenance activities in towns, villages and townships.

Area	Total Kilometres of Road	Approved Expenditures	Subsidy Paid
Metro Toronto	721.0	44,448,653	21,500,000
Upper Tier	19,477.0	228,257,743	145,699,826
Lower Tier	111,151.1	587,307,603	278,483,824
Traffic Signals			
Upper Tier	—	3,187,689	1,540,408
Lower Tier	—	2,617,784	1,191,194
Computer Systems			
Metro	—	147,964	73,982
Peel	—	77,304	38,652
Total	131,349.8	866,044,740	448,527,886

Development Road Program

Development road work are municipal projects which would ordinarily place a financial burden on municipalities. MTC subsidizes these projects under agreements with each municipality up to 100 per cent of the total cost.

These roads remain under the jurisdiction of the municipalities with work done either on a day labour basis or by contract. There were 42 projects during the year resulting in an expenditure of $7,404,514.

Unincorporated Areas

The ministry contributed $3,406,000 for maintenance and $2,219,996 on road and bridge improvements involving over 100 projects in the unincorporated areas. During the year there were 25 statute labour boards, 226 local road boards and 43 indian reserves and 114 other groups which expended funds on roads in these areas.

Policy Planning Branch

The past year was one of consolidating and strengthening the organization. As well, the role and function of each office in the branch was defined in terms of a practical approach to MTC's policy development needs.

Corporate Policy Coordination

Staff associated with this function produced a major discussion paper to assist the ministry in improving its future effectiveness in the federal-provincial relations area.

Goods Distribution Systems Office

This office moved quickly to define its mandate and identify key programs.

These were directed toward improving the effectiveness and efficiency of the goods transportation/distribution system and thus support productivity improvement in the manufacturing and service sectors.

There are three major program elements:

- Provide advisory service to small Ontario export oriented shippers to resolve their transportation/distribution problems;
- Explore opportunities to expand Ontario's role as a North American transportation hub for international goods movements; and
- Promote the establishment of a comprehensive, computerized transportation pricing/routing/service data information system for Ontario/Canadian shippers and carriers.

Urban Transportation Policy Office

During the past fiscal year, personnel successfully shaped and supported the following significant strategic achievements:

- Met MTC's strategic requirements in the greater Toronto area by developing a transportation overview and strategy that contributed to the development of the inter-regional rapid transit strategy now being implemented under the GO ALRT Program;
- Initiated a number of strategic studies designed to influence the coordination of transit services in the greater Toronto area;
- Supported the Toronto area liaison committee in fulfilling its role in discussing common problems, issues and future perspectives in transportation and land use; and
- Supported the coordination and preparation of the strategic directions for MTC's municipal program.

Intercity Transportation Policy Office

Office staff worked to expand its understanding of passenger travel with a view to ensuring effective implementation of policies encouraging intermodal cooperation and system integration. In detail the following projects were carried out:

- Closer liaison was effected with the carrier industry through the ministry's rail and bus office;
- Agreement in principle was obtained for an intermodal terminals program and initial demonstration project;
- The associated policy components were tentatively accepted by representatives of the intercity rail and bus modes; and
- The concepts of mobility and modal choice were supported by initiatives in preparing an Ontario Intercity Transportation Guide, by research projects in mobility and intermodal coordination and by auto, rail and bus passenger surveys.

Transportation Demand Forecasting Office

Staff completed several strides in the areas of transportation demand estimating techniques, cost effective data sources and policy sensitive outputs, including:

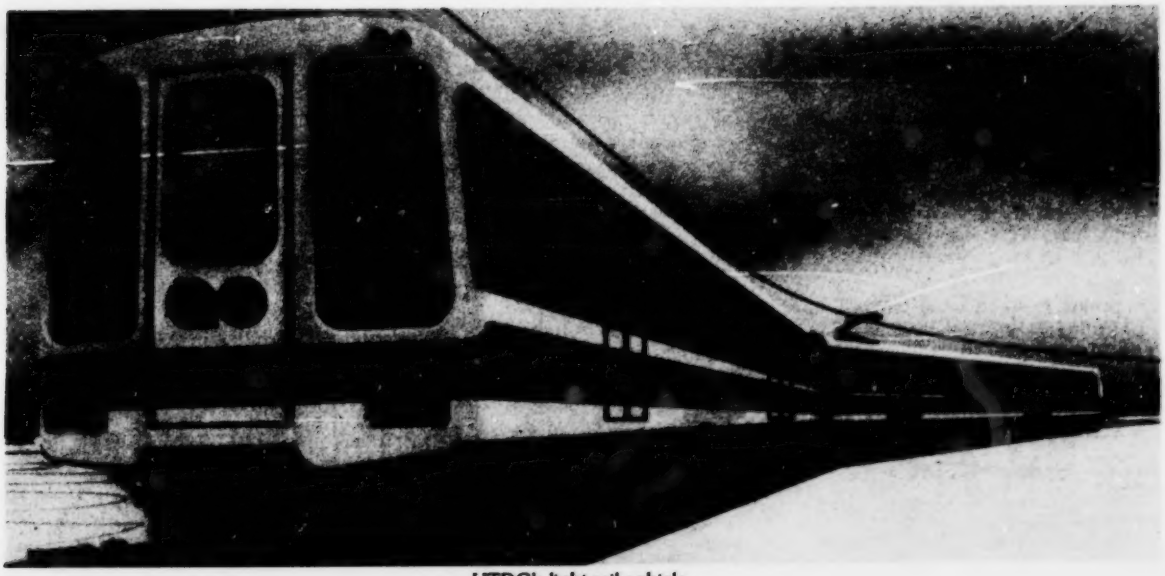
- Developed short range demand forecasts for GO ALRT by applying a more readily understood and flexible technique in conjunction with micro-computers;
- Evaluated the transportation data needs of the ministry, negotiated the joint federal-Ontario Transportation Data Collection agreement and promoted provincial-municipal transportation data exchange activities to meet MTC's data needs and reduce the data collection cost;
- Initiated a data collection program for truck goods movement; and
- Provided technical assistance to municipalities by conducting seminars and rendering technical advice.

External Relations

MTC's wide range of contacts with transportation agencies of other governments and the transportation industry are coordinated through the office of the coordinator of external relations.

This office assists in development and administration of transportation policy and helps ensure such contacts and meetings appropriately reflect the views of the government with respect to external relations generally.

During the past year the coordinator was involved in attempts to reach an accommodation between federal and provincial government positions on such matters as federal ports legislation, national domestic air carrier policy, and provincial efforts to achieve the national railways' recognition of provincially-operated commuter rail services.



UTDC's light rail vehicle

Transit Office

Transit office staff was responsible for transit program policy development, evaluation, administration of municipal transit financial assistance programs, development and management of operational improvement and demonstration projects, and carrying out or assisting in planning for municipal and provincial transit system improvements.

In 1982-83 a total of 68 municipal transit systems received financial assistance in accordance with the transit operating assistance policy, which provided a subsidy to cover 50 per cent of the theoretical net cost calculated on the basis of a target revenue/cost (R/C) ratio established for each municipality.

Also, additional subsidy up to a limiting amount was provided to those municipalities falling short of their target R/C ratio. Municipalities experiencing an above normal population growth also receive additional subsidy.

As well, municipalities introducing a new major rapid transit facility, were eligible to receive special subsidy for the initial years of operation. Agreements were developed for such undertakings on an individual basis, incorporating municipal initiatives related to coordinated land use, transportation policies and detailing the operating subsidy terms.

Capital funds were also provided to municipalities at the rate of 75 per cent of expenditures associated with the acquisition of surface capital items and rapid transit construction.

Construction on the Scarborough Intermediate Capacity Transit System (ICTS) started in 1982, utilizing new transit technology developed by the Urban Transportation Development Corporation (UTDC). The total project cost is estimated at approximately $180 million scheduled opening is the fall of 1984.

The construction of the $160 million Region of Ottawa-Carleton exclusive busways continued in 1982. Eighteen lane-kilometres and six stations are scheduled to open in the fall of 1983.

Several initiatives were undertaken to improve transportation services for physically disabled persons, including the development and publication of "Guidelines — Parking Regulation for Physically Disabled Persons", a model parking by-law and development of a computer-aided reservation, scheduling and dispatching system.

Financial and technical assistance to municipalities undertaking transit studies continued. Operational studies of existing and potentially new transit services were completed in Oakville, London, Peterborough, Milton, Elliot Lake, Orillia and Sudbury area. In Hamilton, a major study to review the operation and management of the Hamilton Street Railway (HSR) and its totally-owned subsidiary, Canada Coach Lines, was started; the first phase dealing with the strategic planning, was completed.

In the Toronto area, a major initiative to examine the potential for area-wide fare integration began and progress was made toward establishing a regional bus terminal at the Kipling subway terminal.

A joint MTC/Ontario Urban Transit Association (OUTA) committee, in cooperation with the Ministry of the Environment, completed a class environmental assessment for municipal transit projects. A joint MTC/OUTA productivity study was initiated to assist transit systems to maximize the effectiveness, productivity and efficiency of transit services.

The first public edition of Ontario Urban Transit Fact Book, summarizing 1981 information, was published in 1982, and its distribution included councils of municipalities with public transit systems.

For the province's articulated bus demonstration project, a three-year operational testing started in early 1983 in Toronto, Ottawa, Hamilton and Mississauga, to assess the economic viability of the 53 coaches developed and manufactured by the diesel division of General Motors (Canada) Ltd.

In conjunction with the Board of Industrial Leadership and Development (BILD), staff was involved in the development and demonstration of a modular and completely automated transit information, Communication and Control System (TICCS). It employs the latest advances in microprocessor technology and enables transit managers to translate policy and resource constraints into a planned service.

Certain components of the system were in operation in the participating systems in Toronto, Ottawa, Hamilton and Mississauga. The components will be made available and marketed in Ontario as well as other transit properties in North America.

A project to demonstrate the operational viability and to assess the performance of an articulated light rail vehicle (ALRV) developed by UTDC, began in the fall of 1982. This involved a six-month revenue service testing in Toronto.

London's municipal airport

Air Office

Staff had broad responsibilities for policy and program development in connection with MTC's interest in air transportation in Ontario. Their overall role was to achieve mobility of people and goods in Ontario by assuring access and choice to air transportation facilities and services which are reliable, fairly priced, safe, effective and efficient. Activities were divided into three sub-groups: remote airport development; municipal airport assistance; and, air transportation influence.

The objective of the remote airport development program was to develop and maintain a system of public airports for remote communities in Ontario's far north to relieve isolation and reduce transportation costs. Construction and maintenance of MTC's airports in remote northern areas was the responsibility of the ministry's northwest region.

Air office responsibilities in this program were the development of policy and standards, preparation of multi-year programs and monitoring of current programs. The system now includes 18 operating airports; two additional airports were under construction. Capital funding was through MNA and maintenance funding through MTC.

The objective of the municipal airport assistance program was to assist municipalities in developing and maintaining a system of municipal airports in order to facilitate the movement of people and goods and to support economic development. It covers the entire geographical area of the province.

The subsidy program, supplemented by funds made available through BILD, was made available to 46 municipalities, 40 of whom either had airports in operation or under construction. Staff offered guidance to municipalities on the planning, designing and operation of their airports and entered into agreements with them for requested subsidies towards development projects and maintenance expenditures.

Goal of the air transportation influence program was to influence other governments, the air transportation industry and the air transportation users that an adequate access and choice to reliable, fairly priced effective and efficient air transportation services and facilities are maintained in Ontario.

Staff maintained liaison with airport operators, commercial air carriers, other interest groups, Transport Canada and the Canadian Transport Commission (CTC), the federal agency responsible for licensing and regulating all aviation activities.

A major and ongoing function in this program was the monitoring of the extent and quality of commercial passenger air services afforded Ontario residents. This involved, in part, an assessment of each application submitted to the CTC for authority to operate new or revise existing services. In this regard, staff reviewed some 600 applications and formally responded to the CTC on 21, noting the position of the Ontario government in each case.

Ontario has agreed to purchase two new de Havilland Canada Dash 8 aircraft for use in the norOntair system. It also sponsored local and feeder air service in northern Ontario. Efforts in the fiscal year 1982-83 were initiated jointly by air office staff, MNA and the Ontario Northland Transportation Commission to finalize the deployment of the aircraft and award a contract for the operation of the aircraft to a private air carrier. It is expected the first Dash 8 will be placed in service in the latter part of 1984; the second, early in 1985.

Special policy issues addressed during the past year were: the air navigation system in northern Ontario; design criteria for airport licensing; proposed airport operations manual; revisions to the Aeronautics Act; airport zoning implications; etc.

Personnel continued to be involved in implementing the Ministry of Health's system of medical emergency heliports at many hospitals. Actual construction of each heliport was the responsibility of the hospital authority. The office continued to develop standards and provide assistance and guidance relative to site selection and licensing procedures

Rail Office

Personnel were responsible for co-ordinating Ontario's interests in all rail-related activities, as well as promoting and assisting the development of a suitable provincial rail transportation system for both passengers and freight.

It was also involved in a large number of diverse on-going programs such as: branch line rationalization; review of the level and quality of passenger services; regulatory activities, freight issues, promotion of intermodal station and service development, and safety issues.

Two important developments that took place were re-introduction by VIA Rail of direct passenger service between Toronto and Chicago; and a major study of passenger service requirements in Ontario's northeast corridor in cooperation with ONTC and MNA.

Staff also attended CTC regulatory hearings on behalf of the government

Vessel passing through the Welland Canal

on the potential abandonment of CN's Beeton and Renfrew subdivisions and the Fergus town spur. As well as these, there were a number of outstanding abandonment applications currently being investigated, including CN's Meaford, Uxbridge (Cannington spur), and Pagwa subdivisions, as well as CP's Carleton Place subdivision.

In conjunction with abandoned branch lines, staff continued investigation of acquiring abandoned rail corridors either for MTC, or other government agencies in order to protect viable future corridors. The rationalization of branch lines and the potential acquisition of viable abandoned rail corridors are two important elements in the formulation of a provincial master rail plan. Another aspect of this plan under study is the potential sale of the Conrail/Canada Southern rail line, running through southwestern Ontario.

Staff also participated in the initial planning to electrify GO Transit's lakeshore commuter rail service.

Staff, meanwhile, participated in government/industry joint research into technical standards and economic impact of railway electrification on a national scale, including Ontario.

Personnel was heavily involved in such other passenger-related issues as the continuing intensive work in the Quebec City/Windsor corridor. Extended and detailed discussions were initiated with VIA to encourage and shape the nature of possible corridor improvements to passenger rail services.

Staff continued to be jointly involved with other provinces in regulatory studies and issues. In conjunction with other provinces, Ontario took the lead in: a task force on commuter rail legislation; Thunder Bay rail capacity study; and the railway costing/railway cost capital.

Staff also participated in a group of committees to define policy and implementation of projects affecting public transportation modes, including the rail, bus and intermodal committees. They also represented Ontario on VIA's regional advisory council.

Personnel continued to be involved on a long-term basis in subject areas which required continuous monitoring and action, including: rail safety issues, transportation of dangerous goods, rail and road crossings, plus regulatory issues such as the Crow rate amendment; CTC jurisdiction over private sidings; commuter and passenger rail Legislation; freight rate issues; and, railway operations technology.

Marine & Pipeline Office

This office was set up in 1981 in response to the Great Lakes/Seaway Task Force recommendation that MTC establish a unit to address identified issues. Several projects are underway to respond to specific recommendations endorsed by cabinet.

Contacts have been maintained with federal staff with jurisdiction in marine matters. Ontario's ability to influence decisions regarding such issues as extension of the navigation season, short and long-term improvements to increase capacity on the Welland Canal, shipbuilding capital expansion, tolls and user charges, depend on contact with federal departments responsible in these areas.

A study to develop a commercial promotion program for the Great Lakes/Seaway System was undertaken in co-operation with the ministry's Goods Distribution Systems Office and Ontario International Corporation.

Interviews were carried out with a broad cross-section of industry transportation experts in shipping, including shippers, shipping lines, agents, forwarders, export agencies and other groups. The study team will recommend a promotional program which recognizes private sector needs as well as the government's trade and industry development objectives.

Ontario's strategy for port development was underway through a joint consultant study funded with Transport Canada. An inventory of all public ports and various private ports will define future investment needs for those ports with a major regional significance. It will allow both the federal and province governments to direct their efforts to develop ports with the greatest potential to serve Ontario's future growth.

The office had underway several projects to increase the public's awareness of the marine system in Ontario. A film for Ontario Place was under production. A total program of public awareness options to complement the film will be developed for implementation over a two to three-year period, using the Ministry and outside specialists.

Testing a vehicle on MTC's dynamometer

Transportation Technology & Energy Branch

Staff addressed problems and opportunities in transportation infrastructure, vehicle technology, transit, control and communication systems, alternative fuels, and human factors.

In addition, a major effort was made to improve the energy efficiency of transportation in Ontario and reduce consumption of petroleum-based fuels.

They were also active in many co-operative projects with other provincial ministries and agencies, including the federal government, municipalities, universities, private sector industries, and technical societies at the national and international levels.

For part of the year, the branch was under Policy Planning & Research Division, however, that organisation changed. Policy Planning Branch and Research & Development went to other divisions and reported separately.

Transportation Energy Management Office

Under the Transportation Energy Management Program, (TEMP) a joint venture with the Ministry of Energy, this office was engaged on a broad front to reduce Ontario's dependence on petroleum fuels in transportation.

Alternative Transportation Fuels

This group was concerned with engine modifications, fuel technology, and promotion of substitutes and extenders for conventional petroleum-based fuels. The following are some of the areas of concentration.

- Promotion of propane as a commercial fuel. As a result, there were thousands of propane-powered vehicles and more than 1000 propane fuelling stations in Ontario.
- Development of improved propane carburetion in association with the U. of T. This project has significant industrial potential.
- Evaluation of the performance of 22 vehicles powered by compressed natural gas — a joint project with Consumers' Gas.
- Dynamometer testing of a heavy-duty diesel truck engine modified to run on propane.
- Tests of vehicles running on methanol fuels.

Share-a-Ride

This program promoted energy and traffic-saving concepts such as vanpools and commuter carpooling. Efforts resulted in the creation of 120 vanpools and 500 carpools. An additional 700 carpools were attributed to MTC's commuter parking lot program. Annual fuel savings as a result of ride-sharing were estimated to be five million litres.

Municipal Transportation Energy Management

An estimated 33 per cent of Ontario's fuel consumption occurs in transportation systems under municipal control or influence.

This group worked closely with municipalities to provide technical assistance and educational material to capitalize on opportunities to save fuel. A quarterly newsletter was distributed and more chapters of the transportation energy analysis manual were completed. A driver training program for municipalities was also developed.

Staff continued in development of energy management plans for Toronto and Hamilton-Wentworth and completed installation of computer-controlled traffic system demonstrations in Waterloo, Durham and Brantford.

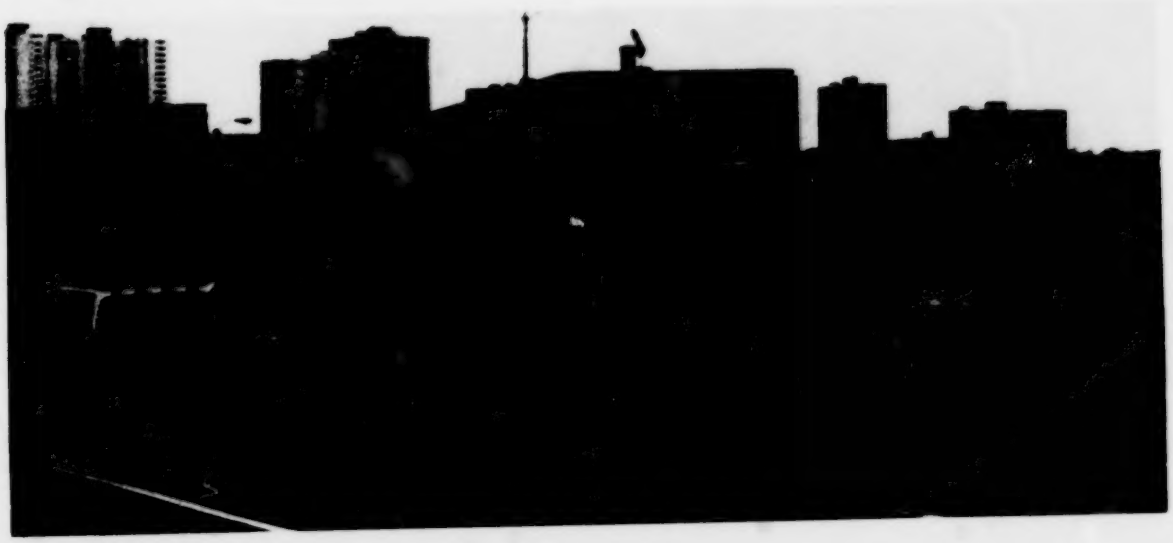
Marketing

Staff worked with industry and the general public to disseminate information and promote the adoption of fuel-saving methods and technologies. Approximately three million pieces of information were distributed.

One of the highlights of the year was the 1982 Trucksave Fuel Economy Challenge — a contest involving trucks and truckers in actual service on the 401. Industry response was enthusiastic and media interest high. The contest focussed attention on driving for fuel economy through coverage in 18 magazines (including three cover stories), some of international scope.

Another highlight was completion of *The Drivesave Zone*, an innovative 23-minute colour film on driving techniques that save fuel and money. Although designed specifically for driver education classes, testing showed it to be of interest and value to all drivers, regardless of experience or age. The film is available from public libraries across Ontario.

Additional accomplishments of note included:



- a seminar on propane as a motor fuel attended by 200 fleet managers;
- incorporation of Drivesave materials into the curriculum of Ontario's largest driving school;
- implementation by over 300 companies of Drivesave and/or Trucksave training programs; and,
- adoption by 10 trucking companies of a 90 km/h fleet speed limit and posting of the Trucksave 90 km/h sign on all of their trucks.

Teleconferencing

Information on teleconferencing as a substitute for travel was distributed to 1,400 organizations and presentations were made to 400 groups in the private sector. Nine ministries installed teleconferencing systems and it was estimated travelling was reduced 30 per cent in areas where it was applied.

Human Factors Assessment

Projects were completed on compliance with truck regulations, assessment of the class G licence test, and a survey of the public's concerns with intercity transportation of goods and passengers.

Also, a new driver education course was developed for use in Ontario high schools.

Other major projects included a study of aesthetic criteria in highway design, costs of littering and vandalism and the impacts of communications technology on privacy and travel patterns.

Control Systems

This group was active in assessment and promotion of fibre optics technology for use in the planned 401 freeway traffic management system.

Municipal traffic control systems; This project was almost fully implemented in Waterloo, Durham and Brantford. As a result of these successful demonstrations, several other municipalities undertook installation of similar computerized traffic control systems.

The Signal System Timing Optimisation Program (SSTOP) in use across Ontario and Canada was further developed and two seminars held for ministry and municipal staff.

In addition to traffic control applications, some of the feasibility studies included:

- Video Pattern Recognition — Investigation of this technology to replace conventional wire loop vehicle detectors.
  - work on a system which can recognise and record licence plate numbers on moving vehicles for use in origin/destination studies.
- Micro-weather Information System
  - Investigation of ways to make winter maintenance simpler and more efficient by computer processing of available weather and micro-climate information to more accurately predict winter maintenance requirements.
  - ways sensors can be developed or applied to provide instantaneous information on weather conditions affecting particular stretches of highway.

Transport and Vehicle Systems

Staff continued to work closely with the Toronto Transit Commission (TTC) and companies in the private sector to help improve the performance of transit vehicles.

A simple suspension retrofit for older subway cars was designed and constructed by Dofasco, incorporating suggested modifications. Testing has shown it to be effective in eliminating lateral stability problems, thereby reducing wheel and rail wear and improving passenger comfort.

Computer analysis of noise and vibration generated by streetcar wheels helped the TTC reduce their problem. Development work continued on an MTC-designed, rubber-damped streetcar wheel offering potential for further improvement.

Analysis of the design principles of electric traction systems indicated that many electric transit vehicles were over-powered.

Automotive Energy

Research centred on testing of electronically-controlled propane carburetors designed specifically for Ontario conditions.

A program was begun to convert heavy diesels to propane. A demonstration project, using diesel transit buses was underway in co-operation with OC Transpo of Ottawa, federal government and Ministry of Energy.

Compressed natural gas (CNG) also has potential as a motor fuel. Several MTC vehicles and vehicles in the fleets of Consumers' Gas and Union Gas were converted to CNG.

Research also continued at Royal Military College to develop a storage medium to increase the operational range of CNG vehicles. A new test program was begun at U. of T. to examine commercially available CNG conversion and dual-fuel equipment.

A joint program with Suncor and Alberta Gas Chemical assessed the viability of methyl-alcohol-based fuels. Forty unmodified MTC vehicles were running on a special blend of 10% methyl alcohol and 90% gasoline.

Commercial Vehicle Operations and Safety

This group conducted extensive testing of overlength vehicle types, concentrating on manoeuvrability, braking performance, modes of instability, and splash and spray characteristics. Test results provided valuable input to the Uffen Commission.

Two test findings in particular had immediate implications:

- Braking performance of commercial vehicles was found to be less than ideal. Staff were working with industry to improve braking system performance and operation.
- Testing demonstrated splash and spray could be effectively reduced by using "astroturf" on mud flaps and enclosing the wheels.

Another project of full-scale testing (done in cooperation with National Research Council, RTAC, and Transport Canada) demonstrated potential improvements in the manoeuvrability and stability of "pup trailer" combinations through use of the Canadian-developed B-train converter dolly. The configuration uses a more rigid double drawbar to connect trailers — as opposed to conventional A-trains in which the trailer is towed much like a child's wagon.

Experimental Demonstration & Technology Transfer

This group provided technical and publishing services to the division. Major activities are noted below.

Technical and logistical support was provided to project groups within the division in the form of instrumentation, technicians, the chassis dynamometer at Downsview and the test track facility at Centralia.

Nine bridges were instrumented on behalf of the structural research group and the data collected, recorded, digitized and submitted for analysis. Similar data acquisition services were provided in support of studies of wheel/rail noise.

Staff participated in commercial vehicle testing at the Centralia test facility and federal vehicle test centre at Blainville, Quebec. Also a report was issued on the commercial vehicle accident investigation which provided valuable input to the Uffen Commission on commercial vehicle safety.

Engineers also designed and began to implement a digital control system for the dynamometer, computerizing the system to ensure greater accuracy, safety and economy of operation.

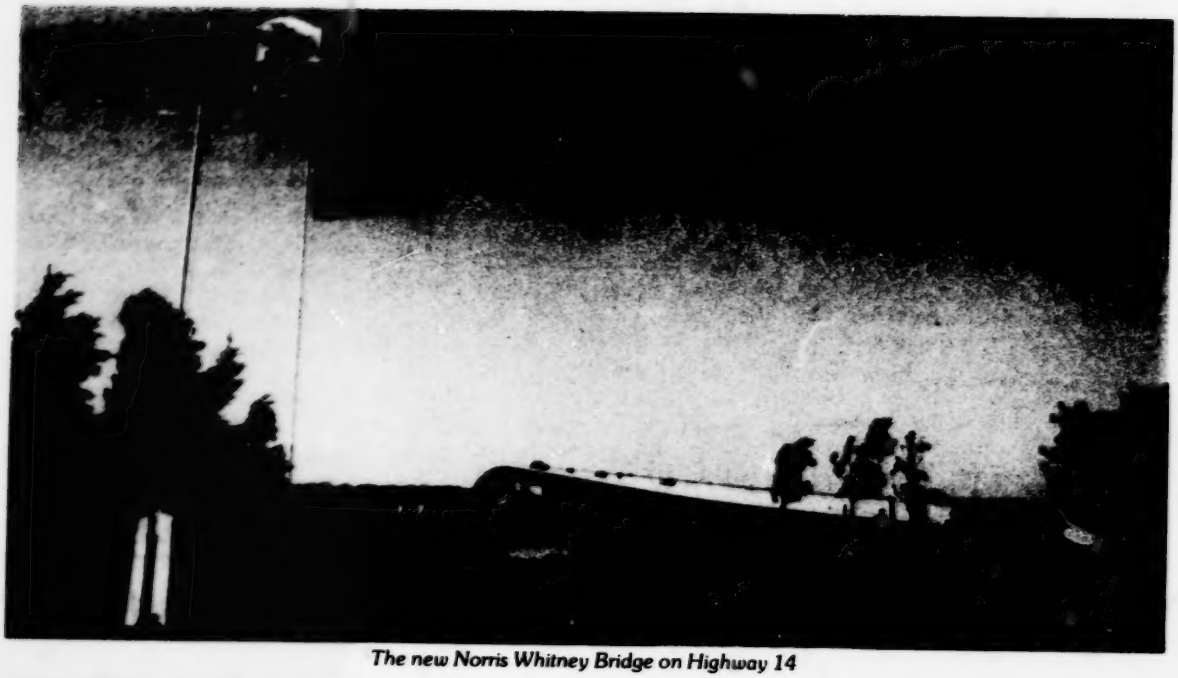
Technology Transfer

This group published 193 items on behalf of researchers in the division and TEMP office, ranging in scope from bumper stickers and research reports to technical manuals.

In the word processing centre, further steps were taken toward the "electronic office."

- The AES Multi-Plus II system was used extensively for bookkeeping as well as text.
- Editors learned fundamentals of the system and most editing of reports was done electronically instead of on paper.
- Typesetting via telephone communications was done routinely. Successful communications were also achieved with consultants using different brands of word processors with the IBM mainframe computer at Downsview.

Rollover testing of a tractor trailer unit



The new Norris Whitney Bridge on Highway 14

Northern Region

Construction

Major construction work continues on Highway 11, four laning the Callander Bypass. Construction was completed on Highways 534, 522, 108, 144, 655, 560, 64, 35, 519 and 637.

Recycled paving was also completed on Highway 121 at Haliburton easterly, Highway 11 at Huntsville northerly, Highway 17 at Junction of Highway 6 westerly, Highway 11 at Mattice, Highway 141 between Highway 11 and 69 and Highway 17 east and west of Mattawa.

Structure work was completed on Highways 17, 141, 560 and 572. Structure work continued on Highways 540 and 549, while major bridge rehabilitation work was carried out on Highway 11 at Earlton and Hearst and Highway 141 at Rosseau. Other bridge rehabilitation work was carried out on Highways 11, 121, 17, 522, 101 and 35.

Construction was completed on the first and second grading contracts at Detour Lake Rd. Two new grading contracts were awarded which will complete the construction of this access road.

Maintenance

Summer work was carried out on some 5,635 km of King's secondary and tertiary highways. Two ferries were operated at Moosonee and Gardiner. In addition to routine maintenance operations, projects for gravelling, priming, surface treating, mulching, crack sealing and asphalt patching were completed.

Winter maintenance was carried out on most of this mileage and privatization in the repair area of the garage operation was continued. Snowplowing using private plowing units was increased to eleven plows this season.

Municipal

Staff administered various road assistance programs to 132 organized municipalities (one county, two regions, three cities, 35 towns, seven villages, 81 townships, 3 improvement districts), 21 Indian reserves, 112 local roads boards and 11 statute labour boards, including subsidy, development roads and connecting links in organized areas and special and specific allotments in unincorporated areas.

Engineering and Right-of-Way Office

Office staff completed 23 sets of contract plans and documents for a value of $56,548,000. Approximately 55 per cent was done in-house and 45 per cent by consultants.

They also carried out property acquisitions for the capital construction program and continued with legal, engineering and geotechnical field survey operations to facilitate the program. And as well they carried out environmental and corridor control activities and provided input into the ministry's pavement management system.

Drivers and Vehicles

Staff, under the direction of the regional office, is divided into two districts: North Bay and Timmins. They served the provincial districts of Parry Sound and Nipissing; the district municipality of Muskoka; the provisional county of Haliburton; the districts of Timiskaming, Cochrane, Sudbury, Manitoulin Island; the regional municipality of Sudbury and the easterly portion of the district of Algoma.

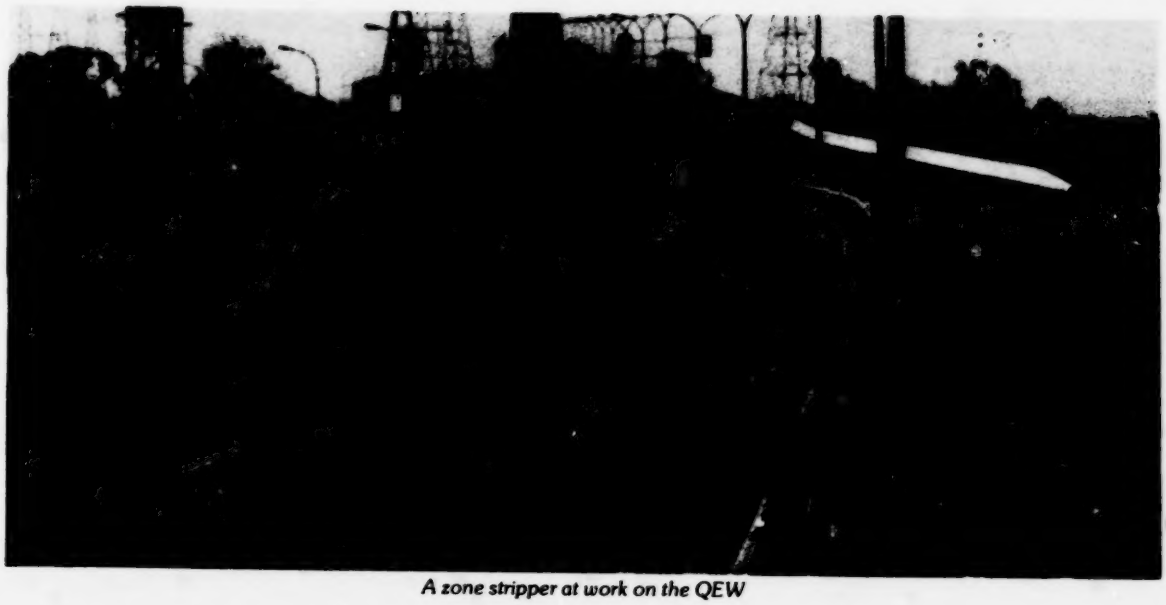
A staff of 73 employees was responsible for driver examination, motor vehicle licence issuing, driver improvement counselling, vehicle inspection programs and enforcement of the Highway Traffic Act, Public Commercial Vehicles Act, the Public Vehicles Act and the Motor Vehicle Transport Act.

A staff of 25 driver examiners and clerical support conducted a total of 20,260 road tests and 39,587 pre-examinations at nine driver examination centres and 19 travel-point locations.

One regional review officer responsible for driver improvement counselling, conducted a total of 1,140 interviews with drivers who had reached the nine demerit point level and conducted a total of 18 hearings.

A staff of 12 vehicle inspectors conducted 5,482 commercial vehicle inspections, 1,620 school purpose vehicle inspections, 119 inspections of church buses, transit buses, "physically disabled passenger vehicles", and highway buses.

They also conducted a total of 1,860 audits and investigations of licenced motor vehicle inspection stations, as well as operated portable mini safety inspection lanes which resulted in the inspection of 2,873 light trucks and cars.



A zone stripper at work on the QEW

A total of 569 vehicles were removed from service for safety-related defects. The audits, investigations and inspection of motor vehicle inspection stations, commercial vehicles and passenger and light truck vehicles, resulted in a total of 596 charges laid under the Highway Traffic Act.

Twenty highway carrier officers conducted a total of 123,306 inspections at five permanent truck inspection stations, four audit truck inspection stations and eight patrol areas. A total of 4,409 reports of suspected violations were completed, with 3,537 resulting in court action being taken.

One motor vehicle licence issuing officer maintained by two ministry employees in North Bay, conducted 26,523 transactions.

The supervisor, motor vehicle licensing agents, conducted 44 site surveys for the installation of 'on-line' computer equipment. Furthermore, 78 agents, clerks and cashiers were trained to operate the equipment for the new vehicle registration system.

Northwestern Region

Construction

During the past year, 15 projects were completed of which three are on Highway 596 leading to Minaki; one included the paving of Minaki Airport. The final section for the reconstruction of Highway 584 north of Geraldton was completed. A 75.5 km section of Highway 527 was paved. A sulphur asphalt mix was used on certain portions for the first time in northwestern Ontario. The re-construction/resurfacing of other sections of highways included Highway Nos. 552/556, 11, 11-17 and 102.

Work started on the widening of the Thunder Bay Expressway to four lanes, extending from Oliver Rd. to Balsam St., including widening of the McIntyre River structure. Work continued on the first contract of the Kenora By-pass, which is in an advanced stage of completion.

In addition, eight other contracts were awarded, including Highway 101/129; Highway 556; Highway 11; and two on the Bending Lake Road.

Maintenance

Routine summer and winter maintenance was performed over 5,800 km of King's, secondary and tertiary highways. In addition, capital maintenance projects, including bridge and culvert repairs, prime and surface treatment, maintenance crushed gravel were undertaken. The Terry Fox Lookout was completed and opened to the public during a ceremony held June 26, 1982. Also, four salt domes and three separate district garage additions were built.

Municipal

During the year, 70 municipalities and 11 Indian reserves received regular subsidies amounting to $19,400,000. Office staff undertook six connecting link projects at a cost of $2,300,000 and one development road project totalling $500,000. Some $2,500,000 was provided to 111 local road boards, 11 statute labour boards, 26 Indian reserves (eight in the remote north) and other informally organized groups involved with public roads outside MTC's jurisdiction.

Remote Northern Transportation

Remote northern transportation office staff operated and maintained 18 airports with new construction at another. Runway restoration was carried out at two of the existing airports. The section also administered the construction of cost shared reserve road projects at nine Indian settlements.

Engineering and Right-of-way

Engineering and right-of-way office personnel carried pre-contract engineering activities for 17 capital construction projects incorporating 87 km of reconstruction and 150 km of resurfacing. Included in this total were six new structures and 19 structural rehabilitation schemes.

In addition, pre-contract engineering activities were carried out for 11 projects involving the reconstruction of 23 km of highway under the ministry's minor capital program. Nine projects were also undertaken on behalf of municipalities which involved new or rehabilitated structures. Various preliminary engineering studies were also carried out.

Drivers and Vehicles

The region's seven vehicle inspectors completed 5,003 mechanic fitness inspections on commercial motor vehicles. In addition, 3,113 vehicles were checked at safety lanes. There were 1,071 inspections performed on school buses.

Highway carrier staff checked 86,765 commercial vehicles resulting in 4,067 charges being laid.

Driver examination and driver control staff conducted 22,421 pre-test examinations and 13,345 road tests for driver's licence applictions. The regional driver improvement counsellor conducted 1,215 demerit point interviews and 17 medical hearings.

One of MTC's emergency patrolmen

Central Region

Construction

The section of Highway 403 from Highway 10 to Mississauga Rd. was completed and opened to traffic in the fall of 1982. This completed the entire route from Highway 401 to the QEW at Oakville.

Work on Highway 427 continued with reconstruction of the section between Highway 401 and Dixon Rd. as well as work on advance structures at Finch Ave. The continuation of Highway 404 also progressed with award of the advance structures north of Bloomington Side Rd. The first contract for drainage works was awarded and construction progressed on construction of Highway 410 through Brampton.

Major reconstruction of the QEW from Highway 20 to Highway 403 through the Burlington Beach Strip began with reconstruction of the Beach Rd. and the award of the Highway 2 interchange reconstruction contract. Work on Highway 406 also continued with the completion of the bridge over Twelve Mile Creek, and, reconstruction of the local intersecting streets as well as the award of the contract for the construction of the Highway 406 and QEW interchange.

Work on Highway 401 east of Bowmanville continued with the widening of Highway 115 to Highway 2.

Work on Highway 401 in Toronto continued with the resurfacing of the collector lanes as well as rehabilitation of the bridge decks between Dufferin St. and Islington Ave.

Maintenance

As of March 31, 1983, our highway network had grown by approximately 116 two-lane kilometres during the year to a total of approximately 5,045 kilometres.

We carried out hot-mix patching in Hamilton and Toronto districts for a total of 41,800 tonnes.

In a very mild winter, we used approximately 130,000 tonnes of sand and 66,900 tonnes of salt. These quantities were very close to 50 per cent of those recorded in the previous year. We installed 27 new traffic signals.

On Toronto district freeways, emergency patrols continued to operate, driving approximately 975,000 kilometres, providing assistance to 25,700 motorists, and dispensing a total of 11,187 litres of fuel.

Engineering and Right-of-Way

A total of 50 projects were prepared for contract advertising for various types of highway improvement projects throughout the region. Major designs involved freeway contracts in the Highway 401, 406, 404, 427, 410 and QEW corridors.

The most significant project prepared was the twinning of the Burlington Bay Skyway structure expected to begin construction in the spring of 1983.

Municipal

Staff was responsible for managing the municipal road programs, including overall budget control for the subsidy, King's highway connecting link, and development road programs in Central Region.

During the year, 115 municipalities and six indian reserves received regular subsidies under the Public Transportation and Highway Improvement Act. In addition, 16 municipalities received subsidies under the traffic signal program.

Drivers & Vehicles

In 1982-83, staff administered a connecting link program involving 41 construction projects with a provincial contribution of $4,379,387, and $427,003 for maintenance in towns and villages.

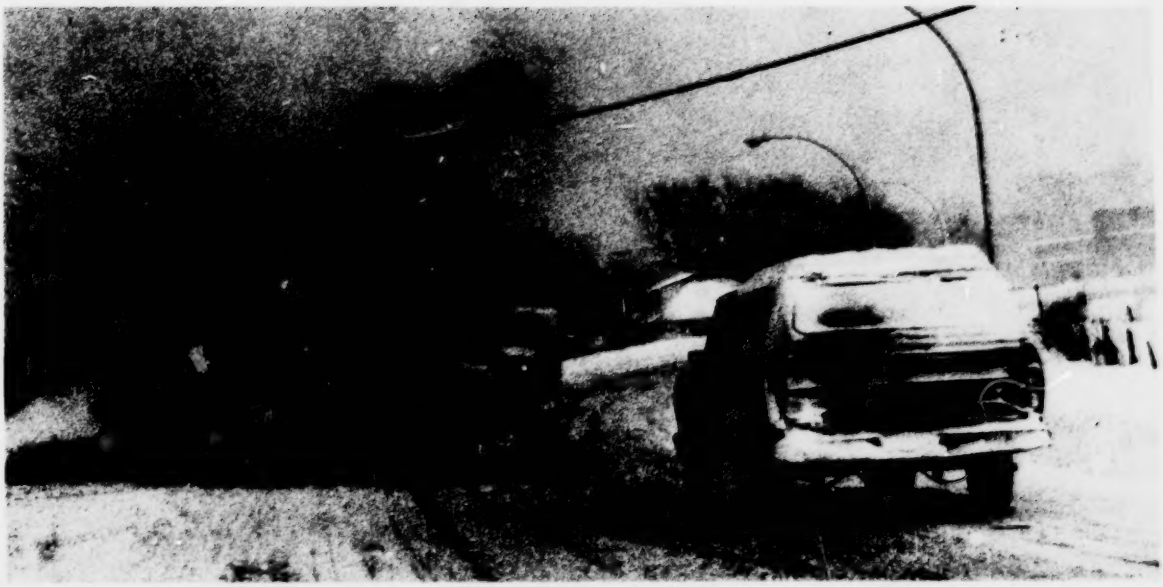
The development road program consisted of three projects with a provincial expenditure of $478,186.

In addition to the above, personnel administered the 1982-83 municipal job creation program valued in excess of 1.4 million dollars.

Staff conducted 255,608 pre-test examinations and 213,443 road tests for driver's licence applicants. As well, 415,090 temporary driver's licences were issued. Driver improvement counsellors conducted 20,289 demerit point interviews, 162 medical hearings and 213 accident repeater interviews. In addition, driver improvement staff conducted 11,108 vision tests and 105 medical waiver hearings.

Staff checked 22,875 commercial motor vehicles both at truck inspection stations and carrier terminals. Of these, 2,846 vehicles were removed from service or tagged unfit. A total of 46,673 cars and light trucks were inspected at either permanent or portable lanes and 3,046 vehicles removed from service. Approximately 3,876 school purposes vehicles and 2,029 commercial buses were inspected. Also, 13,133 audits of motor vehicle inspection stations were conducted.

Staff inspected 1,633,689 commercial motor vehicles which resulted in 10,617 court convictions.



Snowplowing is a vital service

Southwestern Region

Construction

With completion of construction of Highway 402 between Christina St. in Sarnia and the Blue Water Bridge Plaza and the award and completion of a paving contract through Caradoc Township, the Minister officially opened Highway 402 on Nov. 10, 1982.

This completed construction of the 98 km length of Highway 402 which provided a direct freeway link between Highway 401 west of London and Sarnia and the U.S. border.

Other major contracts awarded included: the granular base and paving of the new Highway 3 connection between Leamington and the Essex Diversion — 9.6 miles.

Reconstruction of 3.9 km of the former Oxford County Rd. 6 from Oxford County Rd. 9 (old Highway 2) northerly to Highway 2 (Governors Rd.). This contract included the construction of structures to cross the CN railway and Thames River and provided a 1.2 km truck climbing lane. When completed, this contract, together with work completed previously, will provide a direct connection between Highway 2 west of Woodstock and Highway 401, providing a truck by-pass route of Woodstock.

Reconstruction of Highway 7 from Frederick St. in Kitchener easterly for 2.3 km also took place along with a new interchange at Highway 11 and Oro Township Concession Rd. 9 was constructed.

Resurfacing/recycling contracts were awarded on Highway 6 from Dornoch to Chatsworth — 15.8 km; Highway 6 from Hepworth northerly — 20.0 km; Highway 93 from Highway 11 northerly to Craighurst — 11.3 km; Highway 19 from Milverton to Tralee — 14.1 km; Highway 86 from Highway 23 westerly to Huron Road 12 — 20.3 km; Highway 23 from Teviotdale to Palmerston — 8.9 km; Highway 401 from Elgin Rd. 8 easterly to Highway 4 — 28.2 km; Highway 76 from West Lorne northerly to Highway 2 — 12.1 km; Highway 3 from Aylmer to St. Thomas — 11.6 km; Highway 73 from Aylmer southerly to Port Bruce — 13.9 km.

Highway 3 from Kent County Road 5 westerly to Leamington — 26.8 km; Highway 79 from Highway 7 northerly to Highway 21 — 9.0 km; Highway 21 from Highway 3 at Morpeth northerly to Thamesville — 20.6 km; Highway 2 from the Middlesex/Kent County boundary to Thamesville — 13.6 km, and Highway 79 from Highway 2 northerly to Bothwell north limits — 3.5 km.

Other contracts awarded called for:

Removal of the structure on Highway 3 over an abandoned railway, and reconstruction of Highway 3 at Blenheim's southwest limits. When completed this contract will create safer driving conditions on Highway 3;

Construction of truck inspection sites on Highway 40 north of Wallaceburg and Highway 2 between London and Thamesford. These sites allowed for installation of temporary weigh scales which enabled the MTC staff to better enforce highway carrier regulations;

Installation of 28.5 km of perforated pipe subdrains on Highway 401 between Tilbury and Windsor. This contract was part of a continuing program of preventative maintenance; and,

Also under the capital program, contracts were awarded for structure rehabilitation and deck waterproofing on Highways 401, Highway 7 and 85, Kitchener and Highway 6, Guelph.

Maintenance

In addition to routine summer maintenance, new exit numbering was installed on freeways; three sand domes constructed and our crack sealing and slope improvement programs (to reduce snow drifting) continued.

Also, 33 projects were completed uner the job creation program, including refencing contracts on Highways 400 and 401; a five-bay addition to our Strathroy patrol garage and a new four-bay patrol garage and office at Elsinore.

The 1982-83 winter season was unusually mild with snow accumultions well below average. Expenditures were 15 per-cent less than the previous year, although opening of Highway 402 and additional four-lane sections of Highway 400 increased regional distance by 103 km; sand and salt usage was down by 60 and 33 per-cent, respectively.

Municipal

A total of $119,991,400 in subsidies was paid to counties, regions, cities, towns, villages, townships and Indian reserves in Southwestern Region. Approximately $4,668,500 was expended on 38 connecting link projects and $838,600 on five development road projects. Additionally, $2,201,900 was provided to fund 29 job creation projects.

Drivers and Vehicles

Staff conducted 84,861 road tests for driver licence applicants and 125,571

Keeping the highways free of ice

pre-examinations. As well, 24,649 replacement driver's licences were issued. Driver improvement counsellors conducted 8,379 demerit point interviews. Demand for driver exam services continued to decline.

Staff checked 11,002 commercial motor vehicles both at truck-inspection stations and carrier terminals. About 4,110 school purposes buses were inspected along with 1,025 commercial buses. A total of 10,881 cars and light trucks were inspected at either portable or mini-lanes. In addition, 7,197 audits or motor vehicle inspection stations were carried out.

Staff inspected 659,017 commercial motor vehicles which resulted in 15,365 convictions.

Eastern Region

Construction

The structural steel, concrete deck and asphalt paving were completed on the Norris Whitney Bridge on Highway 14 across the Bay of Quinte, south of Belleville. The new structure was officially opened by Minister James Snow on Dec. 4, 1982.

With the completion in September, 1982, of the 15.3 mile paving contract on new Highway 17, from 9.5 miles west of Cobden to Renfrew County Rd. 17, the Pembroke Bypass was finished. This was the last bypass required in MTC's program to improve traffic flow on the Trans-Canada Highway between Ottawa and North Bay. It was officially opened Sept. 10, 1982 by the Minister.

Reconstruction of an 8.4 km section of Highway 33 from 1.3 km north of Frankford, northerly to Stirling, was completed in July, 1982. As well, reconstruction of an 11.0 km section of Highway 33 from Trenton southerly, was completed in September, 1982.

A resurfacing contract from 0.9 miles west of Highway 127, easterly 12.1 miles to Madawaska, was completed in September 1982.

Reconstruction or resurfacing was also carried out on Highways 2, 7, 14, 16, 17, 29, 31, 33, 60, 62, 401, 417, 506, 507, 511, 512, and 515.

Engineering and Right-Of-Way

Twenty-six capital construction projects were prepared for award in 1982. An additional 20 miscellaneous projects were also processed.

The major study of the Highway 16 corridor to Highway 417 was completed, and awaits approval. A study at the Ottawa Queensway and St. Laurent Interchange was initiated in conjunction with the proposed Regional Municipality of Ottawa Carleton transit way construction.

A parallel street study between MTC and RMOC was started in the area between Rochester and Main Sts. on the Ottawa Queensway where ramp revisions and parallel street capacity will be reviewed. An Ottawa Queensway freeway management study will be co-ordinated with the parallel street study.

Maintenance

The major winter activities of this region consisted of 660,770 kilometres of snowplowing, 81,833 tonnes of salt, and 34,006 cubic metres of sand spreading.

Summer maintenance activities covered 4,119 kilometres of centre line and 4,720 kilometres of edge-line painting. Some 14,219 trees and shrubs were planted, and 3,037 hectares of brush and weeds sprayed. Two traffic signal installations were erected, and five updated. Fifty-three luminaires were also erected.

The districts issued 493 building permits. 1,278 field advertising signs, and 430 guide signs were also processed.

Municipal

A total of $89,425,268 in subsidies were paid to regions, counties, townships, urban municipalities and Indian reserves. In addition, the region spent $2,153,681 under connecting link agreements, and 28 development roads received $3,783,364.

Provincial contributions were also made to: airport programs — $172,838; ferries — $797,810; and traffic signals — $355,783.

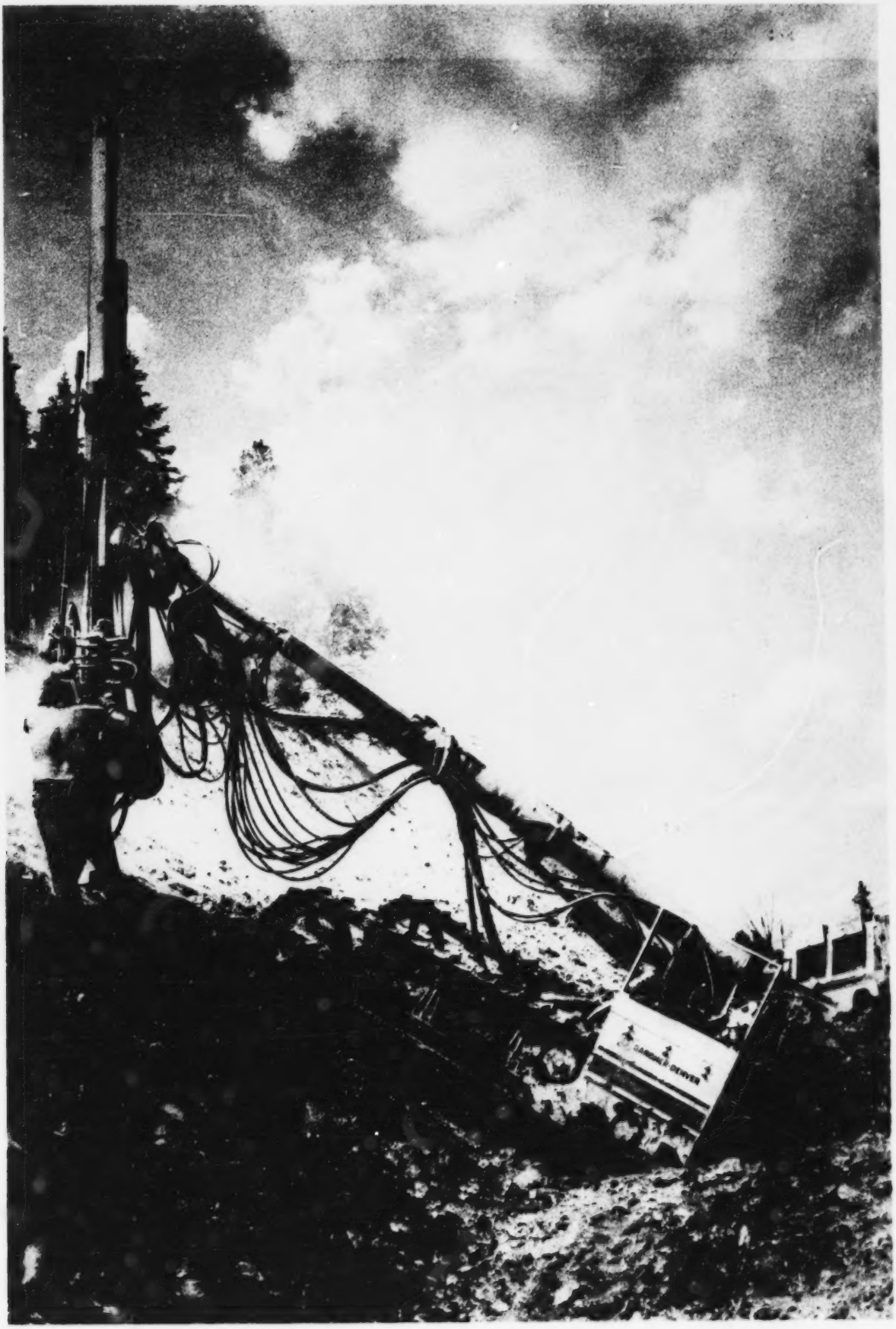
Drivers and Vehicles

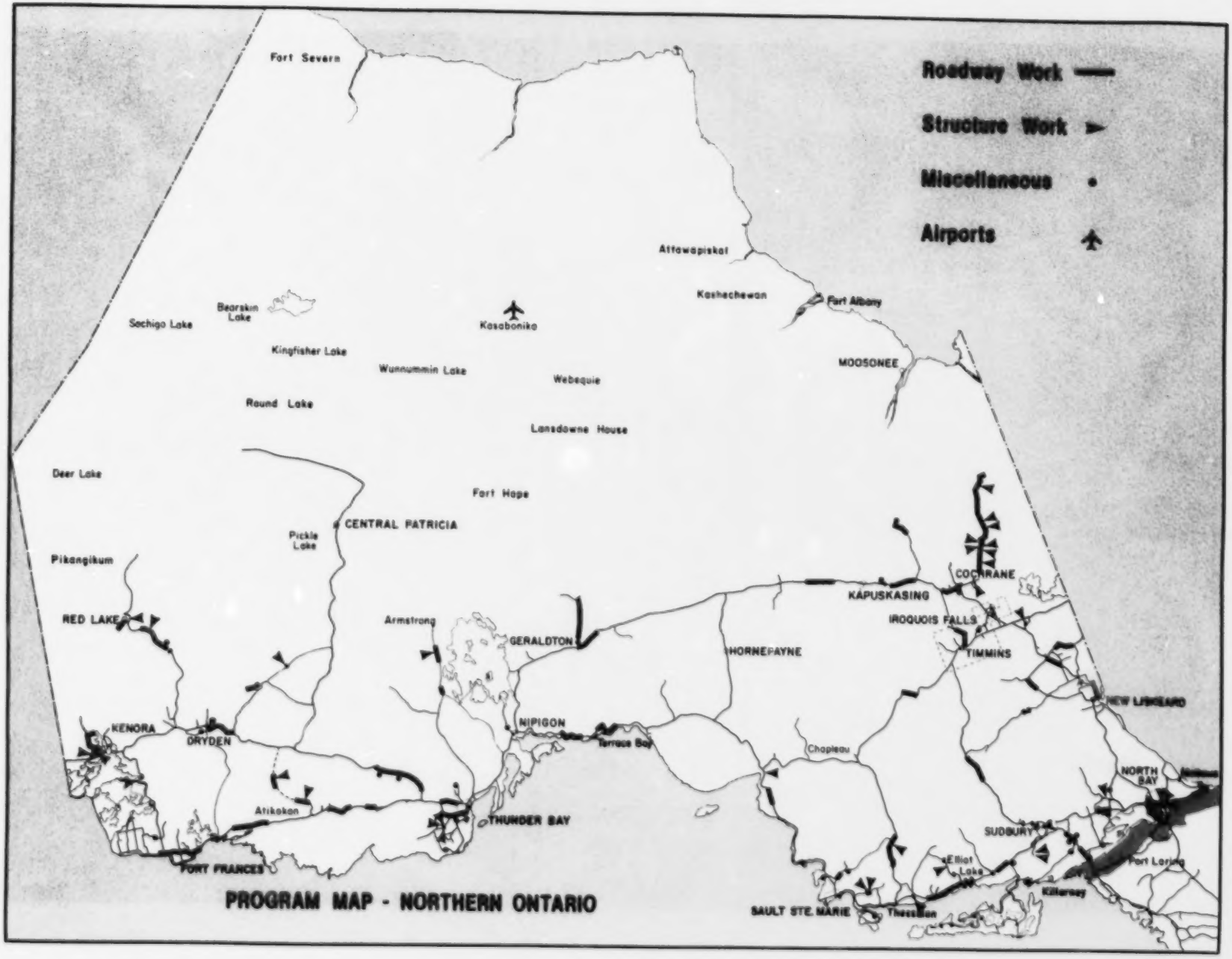
Driver examination staff conducted 96,808 pre-examinations, and 50,759 road tests for driver licence applicants. Driver improvement counsellors held 3,817 demerit point interviews, 68 hearings and 26 accident repeaters.

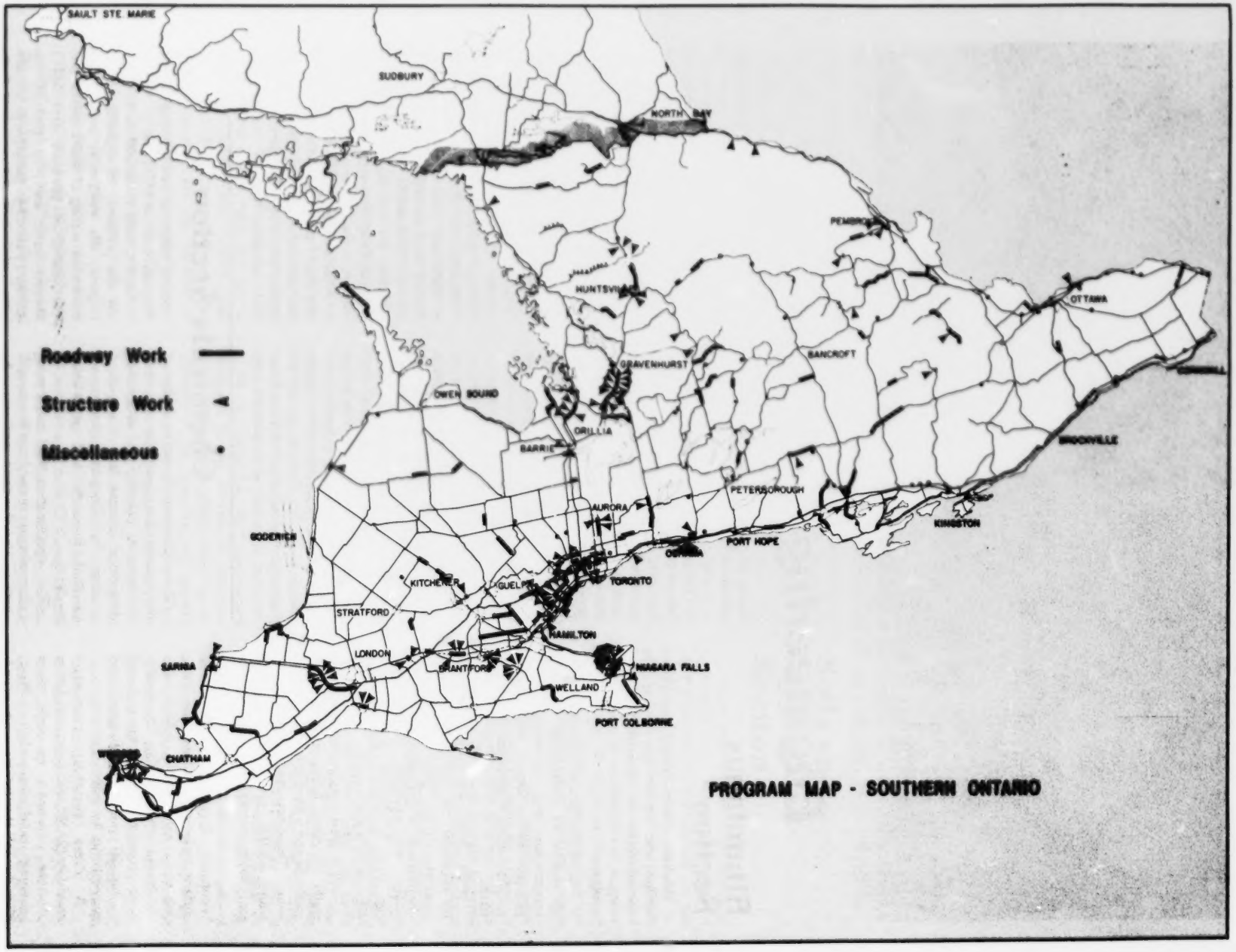
Vehicle inspection staff performed 5,268 motor vehicle inspection station audits; inspected 5,268 commercial motor vehicles, 3,877 school buses, and 469 other types of buses. Portable lane activities included the inspection of 3,449 vehicles of which 858 had serious defects.

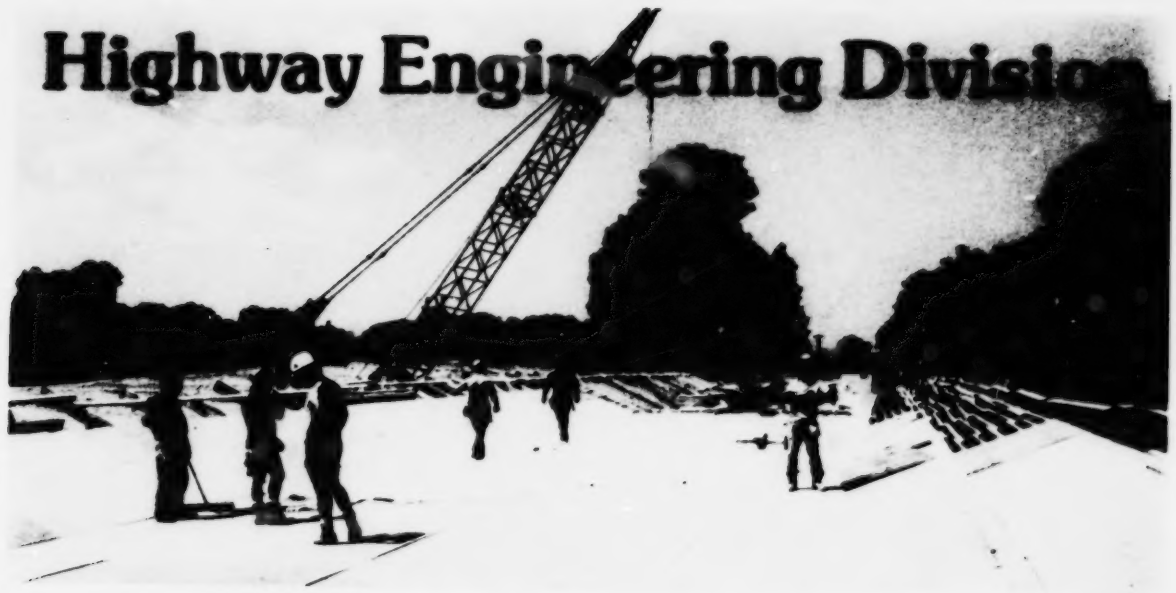
Despite reductions in highway carrier complement, staff inspected 332,235 vehicles at truck inspection stations and designated area patrols.

The establishment of a regional investigations and prosecutions office in May 1982, resulted in the completion of 100 compliance audits, and 281 investigations of unlicenced trucking operations.




Roadway Work
Structure Work
Miscellaneous
Airports
Fort Severn
Attawapiskat
Kashechewan
Fort Albany
Bearskin Lake
Sachigo Lake
Kasabonika
Kingfisher Lake
Wunnummin Lake
Webequie
MOOSONEE
Round Lake
Lansdowne House
Deer Lake
Fort Hope
CENTRAL PATRICIA
Pickle Lake
Pikangikum
RED LAKE
Armstrong
GERALDTON
COCHRANE
KAPUSKASING
IROQUOIS FALLS
HORNEPAYNE
TIMMINS
KENORA
DRYDEN
NIPIGON
Terrace Bay
Chapleau
NORTH BAY
Atikokan
THUNDER BAY
SUDBURY
Elliot Lake
Fort Laring
Killarney
FORT FRANCES
SAULT STE. MARIE
Thessalon
PROGRAM MAP - NORTHERN ONTARIO


SAULT STE MARIE
SUDBURY
NORTH BAY
PEMBROKE
HUNTSVILLE
OTTAWA
BANCROFT
GRAVENHURST
OWEN SOUND
ORILLIA
BARRIE
BROCKVILLE
PETERBOROUGH
AURORA
KINGSTON
GODERICH
PORT HOPE
OSHAWA
KITCHENER
GUELPH
TORONTO
STRATFORD
HAMILTON
LONDON
SARNIA
BRANTFORD
NIAGARA FALLS
WELLAND
PORT COLBORNE
CHATHAM
Roadway Work
Structure Work
Miscellaneous
PROGRAM MAP - SOUTHERN ONTARIO



Engineering Materials Office

Bituminous Section

Asphalt materials testing, asphalt mix design and asphalt mix testing was carried out by staff on behalf of Central Region for construction contracts in progress.

Technical advice and consultation in all aspects of bituminous materials, construction and maintenance was provided to the regions and districts, and to municipal agencies on a limited basis.

Work also continued on the development of performance type specifications for bituminous construction. A directive was prepared with guidelines for the acceptance/rejection of hot-mix under the current specifications.

Further work was carried out in the study of crack filling materials and methods and a third interim report was issued. Three new crackfilling materials were added to the appropriate designated sources list.

In co-operation with Hamilton-Wentworth Region, an experimental surface treatment designed for traffic volumes over 4,000 AADT was constructed with steel slag. The system looks promising and has the potential to be 30 per cent cheaper than conventional hot-mix resurfacing.

A stress absorbing membrane interlayer (SAMI) was constructed over concrete pavement as part of a pavement resurfacing project on Hwy. 77 in the SW Region. It's a rubberized-asphalt surface treatment, utilizing spraying equipment specifically designed to handle the highly viscous rubberized material.

Correlation testing in cooperation with private and public agency laboratories was completed on asphalt cements, liquid asphalts, asphalt emulsions, mix designs, extraction tests and mix quality testing. As a result of Ministry participation in a joint producer/consumer task force, a bituminous testing laboratory certification program took place.

Concrete Section

Through participation in the activities of various MTC committees and task forces, the provision of technical assistance to regional staff and the development of new policies, staff continued to play a major role in the bridge rehabilitation sub-program.

A study of the condition of concrete bridge decks in Ontario on MTC's highway network was completed last summer. Conclusions showed the total cost needs of bridge deck rehabilitation over the next ten years is approximately $200 million.

A two-day bridge rehabilitation seminar was organized in October in Toronto with MTC and the Consulting Engineers of Ontario as co-sponsors. Two hundred technical staff attended the seminar representing contractors, consulting engineers, municipalities, regions and head office.

Work continued on development of performance type specifications for concrete construction. In SW Region similar specifications were simulated through additional test programs on composite and concrete pavement with a significant portion of the concrete testing work carried out by the private sector. Discussions were held with industry on the transfer of process control functions e.g. concrete mix design, to the contractor.

A policy was implemented allowing the use of ground granulated iron blast furnace slag as a partial replacement for portland cement. The main benefits to the ministry are a small, but

Chemicals Section

The section participated in revision of the specifications used for structural maintenance painting and established designated sources lists of approved coatings for Canadian government specified products and proprietary products.

The specification for non-coning traffic paint was revised to alleviate and eliminate application problems. As well, technical reports were published on evaluations of four proprietary coating systems; one coating system was approved for MTC use.

Section staff continued its activities on the provision of expertise to all regions, the evaluation and quality assurance testing of traffic paints and the testing of privately and MTC-owned water wells as part of the ministry's efforts to minimize or prevent salt contamination caused by its operations.

Highway 406 construction at St. Catharines

worthwhile, reduction in the cost of concrete construction and more flexibility on projects where concrete with special properties is required.

Work continued on aggregates from northern and eastern Ontario which exhibit poor durability when incorporated in concrete. The objective of this work is to develop ways of using such materials and/or to designate which aggregates are unacceptable for concrete construction.

Pavement and Foundation Design Section

Foundation Unit

Foundation investigations were carried out and reports for foundation design and construction prepared for a total of 80 structure and earth/rock work projects. Of those, 60 were done by in-house staff and 20 by geotechnical consultants working under staff direction.

In addition, 70 foundation reports for inclusion in construction contracts were also prepared. Preliminary and final foundation design drawings were reviewed for 75 projects scheduled for construction in the next two years. Specialist advice and service was provided to MTC; municipal and some other agencies on all aspects of foundation design and construction.

This included some 30 MTC and municipal construction problems where site inspection by senior staff was necessary, in order to provide recommendations for immediate remedial action. Such projects included embankment and other earthwork failures, culvert and tunnel dewatering problems.

A detailed and extensive pile driving and load testing of both compression and extraction tests were performed at the proposed site of the Burlington Skyway. In addition, monitoring of pile driving was carried out by the use of pile analyser. On selected piles, the lateral load tests were performed to determine the lateral capacities of the vertical piles in the subsoil.

Feasibility studies are already in progress for the GO-ALRT system, and approximately 60 additional foundation investigations will have to be carried out during the next year, which will impose heavy burdens on foundation staff.

Seven different instrumentation projects were being monitored to determine settlements due to rock fill compressibility and consolidation of compressible subsoil. Also, a new project was initiated to monitor earth pressures and vertical and lateral deflections of a structure abutment founded on compacted granular soil.

Pavement Unit

A 16 km long experimental concrete pavement section was designed and constructed. It incorporated a number of different pavement and shoulder designs, which will be closely monitored to evaluate their long-term performance.

As a result of the experience acquired by the ministry in hot mix recycling, new guidelines were developed for recycling of asphalt pavements providing more detailed and up-to-date design and construction information.

Pavement skid measurements were carried out utilizing a brake force trailer at 218 sites on 2098 km. The number of tests were 12,600. Of these, 13 sites were tested for the municipal agencies. Pavement roughness measurements were conducted using the Mays Meter on 3,850 km of highway on 122 projects.

Soils and Aggregates Section

Major progress has been made in introducing statistically-based specifications for the control of the quality of granular materials used in MTC work. This is a more equitable approach for both the contractor and ministry. In addition, acceptance testing is to be done at the point of delivery, thus encouraging the contractor to carry out his own process control.

Detailed field and laboratory work was carried out on alternate sources of high quality and skid resistant hot mix aggregates. This will provide financial benefits because of the identifications of competitive sources.

A voluntary participation, correlation program to measure the relative accuracy of testing of soils and aggregates by municipalities and private sector laboratories has been successfully instituted. To date, the number of participants has been modest. However, as the benefits become known, the number should increase. It is also anticipated that an industry association will assume responsibility for the administration of this program in the future.

Programming was completed in the microcomputer, and it proved to be an effective addition to laboratory operations. Northwestern region installed a similar piece of equipment, and took advantage of this section's expertise and programs.

Technical reports were published on the following subjects: short cut gradation test procedures, acceptance sampling and testing of granular materials, and description of rock for engineering purposes.

At work in the lab

Highway Design Office

Staff of the re-organized highway design office was responsible for five major areas of highway design policy — preliminary design; detail design; design automation; drainage and hydrology and highway standards.

Preliminary design staff issued policy on design standards and guidelines for secondary highways; produced new chapters of geometric design standards for Ontario highways manual, published purchase and management of technical consultant services manual, processed 260 legal agreements for consultant assignments and processed 185 design criteria. Also, a number of policy directives were prepared.

Detail design staff continued the preparation and development of contract design procedures manuals and new contract documentation practices for plan quantity payment and item coding; included a new energy absorbing median barrier in a ministry contract; co-ordinated municipal design courses and provided site specific detailed design for noise barrier installations.

Design automation personnel were responsible for computer systems development and application and entered into a major study for the introduction of computer aided design and drafting (CAAD) as an aid to the highway design process. Implementation of this technology, if found to be practical, can be expected in two to three years.

Drainage and hydrology staff issued a major chapter of the drainage manual on hydraulic design of culverts and presented training workshops to regional staff. Completion of a major research project on road and bridge deck drainage systems were incorporated in the chapter on storm sewer design, and progress made on the integration of environmental concerns into the drainage design process.

Highway standards staff prepared up-to-date standard specifications and drawings for the design, construction, maintenance and safety of highways and monitored regionally developed special provisions and special design standards. Progress was made in development of uniform Ontario standard specifications and standard drawings in conjunction with the Municipal Engineers Association for implementation of these standards; target date is the beginning of the construction year 1984. MTC standards will then be phased out.

The abbreviations and symbols manual was completely revised and scheduled to be printed in the late spring of 1983. Five new noise barrier designs were reviewed and approved for MTC use.

Environmental Office

Staff was responsible for the development and coordination of natural and cultural environmental policy, procedures and guidelines for the ministry's programs and agencies.

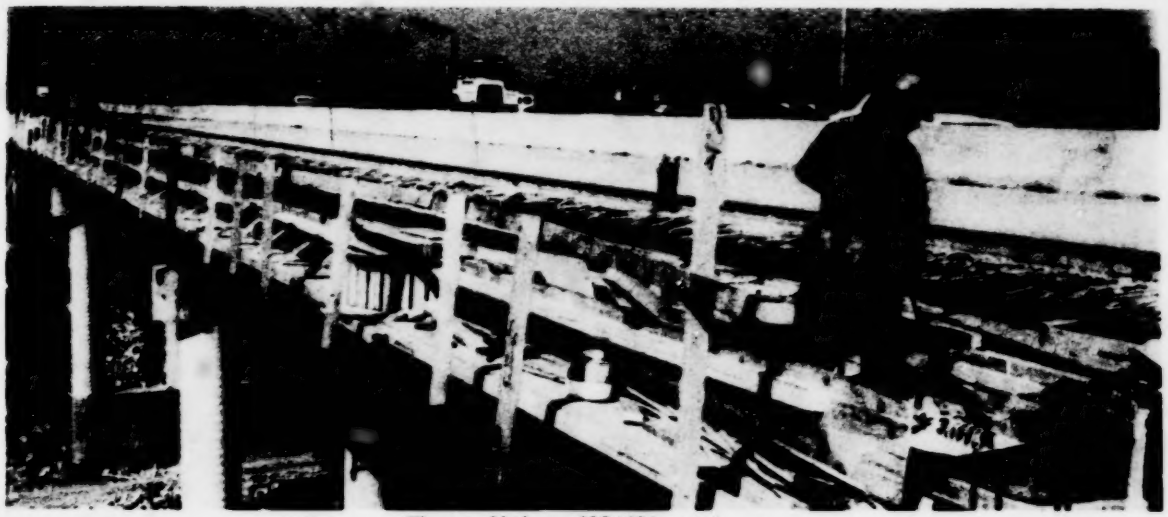
During 1982-83, interpretation and clarification identified environmental assessment matters was provided to the regional planning and design sections, the municipal and air offices, the communications division, Toronto Area Transit Operating Authority, the GO ALRT program and the Urban Transportation Development Corporation.

Developmental work continued relative to the modification of internal policies and procedures for MTC projects requiring individual approval pursuant to the Environmental Assessment Act, RSO 1980, in an attempt to eliminate time delays associated with the former two-stage submission process.

Work began, as well, on the review of the existing environmental assessment class procedures and submission in the next fiscal year, of a new provincial highways program environmental assessment class document for approval by the minister of the environment.

Work continued on preparation of technical guidelines and policy on four important environmental factor areas: salt, noise, soil erosion and groundwater. For these and other environmental factors, staff provided expertise to internal ministry units and to external agencies. Preliminary work was initiated on an environmental handbook for use in highway program areas.

Technical development section staff also administers the environmental quality control program. In 1982-1983, they were involved in training of construction staff, the monitoring and inspection of construction projects and preparation of environmental specifications.



The new Highway 403/401 interchange

Structural Office

The office was reorganized during the year, with the four operating sections being replaced by design and field services sections. The new organization is better able to serve the increasingly important aspects of structural maintenance and rehabilitation.

Field services staff have started to implement the early recommendations of the task force on procedures for structural maintenance and rehabilitation, and assumed responsibility for the designated sources lists for expansion joints and bridge bearings.

Design section personnel completed the alternative designs and drawings for the twinning of the Burlington Skyway. For the second year, the size of this project meant that a relatively small number of other bridge designs were carried out by design section staff and a high proportion assigned to consultants.

The designs for 19 bridges were completed in-house and those for 35 completed by consultants, with technical direction provided by structural office personnel. The total work load, and proportion done by consultants — 65 per cent — matched the previous year.

In the approvals section, the number of new municipal bridge designs checked totalled 137, a 25 per cent drop compared to the previous year. The trend towards more large complex structures continued, however, and among a number of major structures was a 106 m. span steel arch over the English River, checked at the request of the Ministry of Natural Resources.

The joint project with the Ministry of Citizenship and Culture on heritage bridges continued, and about 50 were assessed and rated for heritage attributes.

Work proceeded on the second edition of the Ontario Highway Bridge Design Code (OHBDC). The public comment stage was completed and final changes made to the text prior to publication later in 1983. In the procedures section, major computer development work continued to be the Ontario Modular Bridge Analysis System (OMBAS). This modular system is required for the full implementation of the OHBDC.

Staff was increased for this project and, with assistance from Computer Systems Branch and consultants, work is progressing towards the completion of phase 1 by the end of 1983.

Surveys and Plans Office

In the surveys section, work continued with establishment and evaluation of 406 horizontal control monuments on the Ontario co-ordinate system; 123 horizontal control stations were established for construction; 223 precise bench marks on geodetic datum were established and added to the vertical control system.

The legal documentation group examined 1,004 legal plans and 284 km of highway were designated as controlled access. The total is now 7,438 km. Staff training continued in surveying and drafting with eight regional staff successfully passing qualifying exams.

The aerial surveys section delivered 213 photogrammetric engineering plans as follows:

— small and medium scale (1:10,000 and 1:2,000)
22 plans in-house and seven plans by private mapping firms;
— large scale (1:500 or 1:000)
124 plans in-house and 60 plans by private mapping firms; and
— a number of cross-section projects were also completed in-house.

During the fiscal year 2,050 km of aerial photography were flown by private contractors for 22 mapping and 16 non-mapping projects. As part of this total, 255 km of aerial photography was completed for the GO-Transit ALRT projects. Most of the mapping for this will be done by private companies during 1983/84.

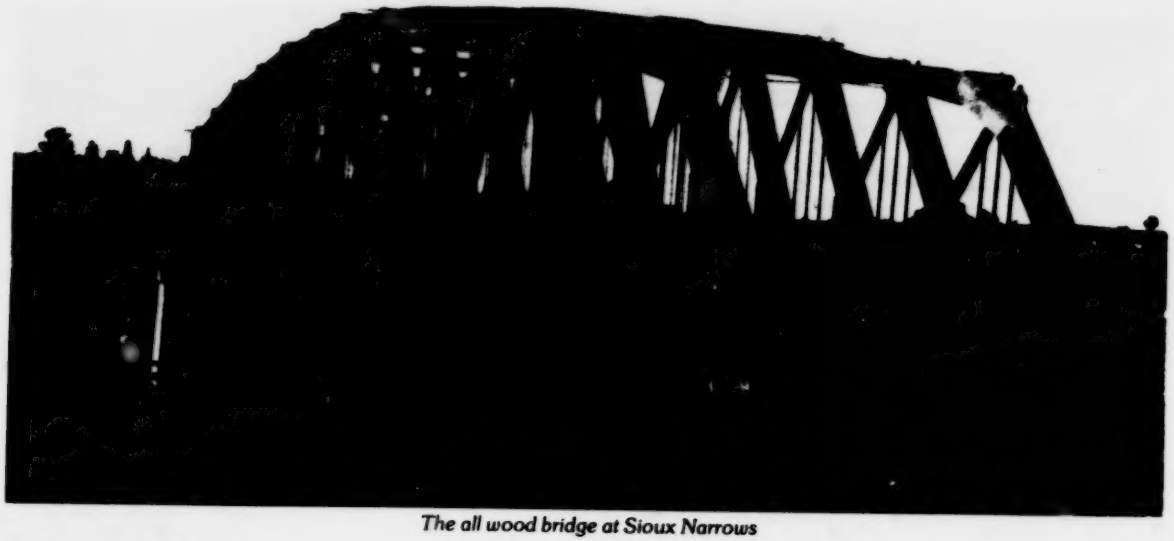
The remote sensing unit continued work on new policies and procedures and provided professional advice and services to the regions. A consultant assisted with the development of remote sensing criteria for locating boulder deposits.

The proceedings of the second national workshop on engineering applications were published jointly with the Canada Centre for Remote Sensing. Liaison with the centre continued on technology transfer and in accessing new, potentially-effective sensors and image analysis techniques.

The section also provided aerial photographic mosaics and image library services to the Ministry and others. 1,331 m^2 of mosaics and related products were produced and 1,532 requests for image library services were processed.

The cartography section continued production work on the new Ontario transportation map series at scale 1:250,000 which will replace the present county/regional municipality lithograph map series at the same scale. The first three were scheduled for printing in the summer of 1983.

The following requests were completed: 66 for cartographic services resulting in 345 base maps; 141 base film duplicates; 15 miscellaneous graphics and 20 for road information compilation. The value of map base film sales to the public was $1,592.00.



The all wood bridge at Sioux Narrows

Research & Development Branch

Staff conducted physical research in three principal areas — structures, pavement and materials and environment. Most of it was done in-house, but more than a third was contracted to the private sector or universities under the Ontario joint transportation and Communications research program.

Activity concentrated on ways to improve the performance and durability of the highway system by making better use of existing techniques and materials. Another major focus was application of new technology to traditional maintenance and rehabilitation problems, in particular the repair of bridges.

Pavement Research

Work advanced on the "weigh-in-motion" truck scale project on the 401 near Whitby.

All vehicles passing over the scale were weighed and the measured axle weights compared with the parameters of the Ontario bridge formula. Any truck violating such parameters was "frozen" on a video screen in the weigh station and selected for static weighing and inspection.

The computer also stored all truck data in tabular form that may be retrieved by telephone link from Downsview. Diagnostic analysis of system performance can also be done by remote telephone link.

Another project, in co-operation with Ottawa district, studied crack-sealing performance and techniques. The study showed traditional techniques and materials didn't work very well. New materials are needed which will adhere to the pavement like a "band-aid" and be capable of stretching as much as 200 per cent in low temperatures.

A highlight was the Canada/Japan workshop on paving in cold areas. Co-sponsored with Transport Canada and the Public Works Institute of Japan.

Structural Research

Staff continued work on revision of th Ontario Highway Bridge Design Code, conducting research and analysis as a basis for code provisions and working with the development subcommittees to further refine the text. Publication was anticipated in the fall of 1983.

The historical Sioux Narrows bridge was of significant interest again this year. Past activity had proven the basic soundness of this, the longest single-span wooden bridge in the world and, this year, the deteriorating wood deck was replaced by a very strong, transversely prestressed wood deck system developed by structural research.

A highlight was winning of the prestigious Moisseif Award from the American Society of Civil Engineering for a paper on load testing a bridge.

Materials and Environment

Materials Research

Staff conducted research mainly on the durability of reinforced and prestressed concrete structures and the development of methods to identify, control and repair corrosion-induced deterioration. Highlights of the year included:

- Four cathodic protection systems were designed and installed on the substructure of the Burlington Skyway Bridge. Based on observed results, second-generation designs were developed to further improve performance.
- A joint study with Queen's University examined the effects of slag cement on corrosion in reinforced concrete. The study indicated slag cement may reduce the susceptibility of reinforcing steel to corrosion.
- The research program to find ways of detecting deterioration of bridge decks under asphalt road surfaces was completed. It was concluded that high technology techniques such as radar scanning and thermography offer dramatic improvements in the ability to diagnose bridge deck problems.
- In November, a seminar on "bridge rehabilitation" took place in co-operation with the Consulting Engineers of Ontario.

Earth and Environment Research

This group researched techniques to improve the use of earth resources in highway building and minimize environmental impacts resulting from highway construction or operations. Activities for the year included:

- Completion of two special reports on the use of remote sensing techniques to detect buried granular deposits, and determine measures of water quality. Interim reports were also issued on the surveillance by remote sensing of the environmental effects of highway facilities in southern Ontario.
- A feasibility study determined the viability of permanently establishing native sedges on infertile sandy

New sound barriers alongside a freeway

roadside slopes in northern Ontario. A test plot experimental phase will follow.

- New testing methods for aggregates were developed which were simpler and cheaper to perform and yet gave better indications of field performance.
- During the year, a report was prepared summarising work of the last few years to optimise the use of de-icing chemicals and investigate their environmental impacts.

Highway Environment Research

Staff was involved in a variety of research relating to the pavement surface, noise, illumination, and roadside appurtenances.

Highlights included actual measurements of pavement surface reflectance, using the photometer developed in association with the University of Toronto; further development of noise barrier science with concentration on acoustic effectiveness, design procedures, and the influence of T-shaped tops and soft ground covers.

Contract Management Office

Staff were responsible for development of new policies and procedures related to contract management, quality assurance, manpower management and staff training required for MTC construction activities. The major thrust for these policy matters included: development of performance specifications; review of contract staffing; and, contract document review process.

Staff were also responsible for preparation of final tendering documents for 248 contracts and provided the official interpretation and clarification to contractors during the bidding stage. Verification of quantities supporting final ministry payments to contractors became an office activity.

Property Office

Policy and procedures for appraisal techniques, acquisition of property, the rental, management and disposal of surplus lands and the quasi-legal aspects of the purchase of real estate in the title-searching and conveyancing functions are developed by office staff.

Using these policies and procedures, staff in five regional offices negotiated 1,099 amicable property settlements. The ministry expropriated 245 properties to obtain title for land required to permit contracts to proceed.

Personnel carried out periodic audits of the five regional property sections to ensure adherence to proper policies and procedures and, in addition, provided technical advice and expertise when requested by regional staff.

The office has responsibility for the resolution of all outstanding claims which may proceed to the Land Compensation Board for arbitration. The ongoing caseload involves about 70 properties with decisions handed down, or negotiated settlements procured, in about 18 cases during the 1982-83 fiscal year.

Another major responsibility was to monitor and review property appraisals carried out by regional staff and fee appraisers. This involved some 213 desk reviews of which 34 were arbitration appraisals. An additional, 103 field reviews were carried out of which 24 were regional requests, 45 were reviews of staff appraisal reports and the balance of 34 were arbitration reviews.

MTC expended $18,110,726 in payment of compensation in acquiring title to lands required for highway projects. An additional $487,513 was paid to owners affected by expressways, subject to cost-sharing agreements between the ministry and municipalities involved.

Revenue of $6,379,778 from the sale of surplus lands and $660,554 from leasing properties was received.

The ministry's formal training program consisted of courses involving appraisals and negotiations to which both this ministry and MGS participated. In all, 30 staff members attended the advanced appraisal course, while three participated in a probationary agents courses and two completed the intermediate agents courses.

Estimating Office

Estimating staff operating with a complement of 24, prepared the official estimate on 288 contracts with a tender award value of $284,670,549. Recommendations for award were made to senior ministry officials on 285 contracts and non-award on three.

Personnel also produced 120 construction cost comparisons, made recommendations for cost effective design alternatives, 280 contract item unit price negotiations and provided 593 preliminary project value estimates for the multi-year program.

They developed input factors for the micro impact evaluation system for roadway and bridge construction as well as co-operating with the private sector and other governmental agencies in construction cost and quantity related matters.

Finally, they prepared reports on unit bid prices, cost per kilometre of construction, equipment rental rates and minimum truck haul rates for internal use and outside agencies.

Highway Operations and Maintenance

Highway Operations and Maintenance Division personnel were responsible for development of policies and procedures, and provision of technical leadership and functional guidance required for the maintenance and operation of the provincial highway system. The division consists of the Maintenance Branch, traffic management and engineering office, equipment engineering office and the corridor control section.

Maintenance Branch

Personnel provided direction to the regions and districts required for the maintenance of the provincial highway system. The branch consists of the productivity and development, maintenance management and signs and building permits sections.

Productivity and Development

This section was comprised of three units: special maintenance services, landscape operations and landscape planning units. Accomplishments in their respective areas are listed separately following the miscellaneous items.

General Activities:

Participation in the Canada Ontario Employment Development Program was initiated with over 60 maintenance projects developed and submitted to the program secretariat for approval. Project funding and implementation procedures were also drafted.

Ministry inputs were also prepared and submitted to the Ministry of the Solicitor General for the Provincial Nuclear Emergency Plan with emphasis on the development of evacuation plans and procedures for the provision of back-up communications and highway maintenance and closures.

A study report and policy directive was prepared requiring the staged shut down of existing overhead sign illumination and describing criteria for the limited use by exception of illumination on new sign structures. This significantly reduced power consumption, capital and maintenance expenditures and improved worker safety.

Coordination and resources were provided for the preparation of cabinet documents describing a policy for the provision and maintenance of rest/picnic/information sites. Implementation will proceed after a further review by Management Board and with participation by MNA, MTR, MNR and MTC.

The ministry's "Save 10" energy conservation program was successfully completed, primarily through equipment conversions to diesel motors, vehicle downsizing, facility retro-fits and operational refinements. This initiative was continued on an informal basis.

Head office guidelines for development and maintenance of patrol yard and truck inspection facilities, were consolidated within Maintenance Branch, which addressed all issues relating to maintenance, contamination, design review, standards and specifications, funding and program development.

Special Maintenance Services Unit:

A comprehensive report on the performance or reflective pavement marking tapes was completed and circulated to all regions. It resulted in applying and monitoring performance under actual traffic conditions over a four-year period. The durability and effectiveness of pre-formed, cold applied, self-adhesive tapes were examined and criteria for their use was established.

An extensive field evaluation of traffic paints was carried out in eight districts to determine the relative performance characteristics and cost effectiveness of MTC approved paints. Tests indicated they had superior durability. Results suggested the need for some revisions to our traffic paint specifications. The cost effectiveness of this more expensive paint based on durability was still under review.

Staff evaluation of more durable pavement-marking products continued with the application of a cold-applied acrylic material for stop blocks and other markings at several intersections in Toronto District. Results were encouraging. They showed a much higher resistance to wear than standard traffic paints. The performance of this material at these locations continued to be monitored.

The conversion of MTC's zone striper fleet to a hot-paint operation continued. Also, as a result of assessing our striper requirements on a regional basis, two striper units were taken out of service. The ministry had 17 stripers, 15 hot-paint and two standard-paint machines operating.

A report on the field evaluation of a variety of flexible plastic delineator

MTC crews carry out continual maintenance

posts, extending over several years, was completed. For certain limited locations, such posts have been accepted as a viable and economical alternative to MTC's standard steel delineator posts. A specification was developed for future purchases of this new product.

Staff participated in a regional highway services meeting in North Bay, and a similar provincial seminar conducted by the Maintenance Branch; and visited a number of districts providing expertise and assistance on maintenance problems and procedures.

New responsibilities were assumed for the evaluation of new products and systems, and the monitoring of facilities maintenance activities and issues.

Landscape Operations Unit:

As in previous years, landscape ops staff continued active involvement in the area of roadside vegetation management. During the year, an audio-visual slide presentation was prepared for training purposes for highway construction inspectors involved in seeding operations. The slides detailed the inspectors' role and duties based on the ministry's revised seeding specification.

A consultant study was initiated to evaluate the potential use of sedges as a vegetative ground cover on sandy infertile soils to determine if this type of plant could be considered as a replacement for legumes which are presently used, but which may not survive maintenance operations. This was an ongoing study.

A process was initiated to certify all contractors' hydroseeding equipment to ensure they met the requirements of the ministry's revised seeding specification. As a result, most contractors had their hydroseeders certified and an official ministry certification plate installed.

Staff issued policy directive C-131 on seeding and mulching on roadside rights-of-way disturbed by construction or maintenance activities. The policy provided direction to design, construction and maintenance staff in revegetating these areas.

In an effort to further privatize landscape operation activities, a new specification was prepared to allow contracting of maintenance operations for newly planted trees. One contract was called and awarded with satisfactory results. Additional privatization in this area is contemplated in future years.

A new procedure for the de-contamination and disposal of pesticide containers was developed and formalized in a policy directive.

Landscape Planning Unit:

On behalf of the regional offices, staff prepared 24 landscape plans for completion in the spring of 1983. Two were designed by consultants. In addition, four landscape contracts were inspected by landscape architectural consultant firms.

In addition a new policy directive outlining acceptable limits of landscape funding on capital construction projects was issued.

Landscape planners also contributed to the capital construction program by providing an evaluation, assessment and interpretation of natural environmental factors relative to the impact of new route alignments, reconstruction or highway upgrading on the landscape. During preliminary and detail design stages, landscape planners also provided landscape development design advice, techniques and information on 78 projects relating to highway design, construction and maintenance.

New responsibilities were assumed for the monitoring and standards preparation relative to the facilities development program.

Maintenance Management Section

Section staff was responsible for developing policies and procedures relevant to highway maintenance as well as sustaining the maintenance management system.

This was achieved by issuing quality standards and operating instructions, and the use of a maintenance computerized reporting system. Staff also performed field studies to evaluate current maintenance practices, prepares training material and provided instruction.

During the 1982-83 winter, 402,346 tons of salt and 723,959 tons of sand were applied on provincial highways. This represented a reduction of 17 per cent in the use of salt and 28 per cent in the use of sand from the previous winter. MTC and private snow plows covered 4,054,433 pass kilometres during the winter, a reduction of 47 per cent from the previous year.

During 1982-83, a new maintenance quality standard for pavement markings was issued and a general

Judging at MTC's annual roadeo at Downsview

review of five others was undertaken.

Operating instructions were prepared and issued for maintenance and operation of snowplow equipment as well as installation of loop detectors, improving the efficiency and productivity of patrols and crews.

Some 300 maintenance staff received winter maintenance training as part of the on-going process, ensuring that all personnel participating in snow removal operations are familiar with existing policies and procedures.

During the winter, 126 private snowplows were used in place of MTC plows and crews. This represented an increase of 46 units over the previous winter. Twenty-eight ministry and three private snowplows were each operated by one man during the past winter — to evaluate one-man units.

An evaluation of calcium-treated sand and salt was undertaken to determine the effects and benefits of this mixture in winter maintenance.

The section also reported on a number of other methods and equipment units during the year; such as sulphur asphalt in patching potholes; routing and sealing surface cracks; and repairs to box beam guiderails.

Twenty-six additional extra-wide plows were put into operation to bring the total number of units to 47. This resulted in an additional reduction of 52 staff, since wide plows were operated by one person while our regular plows required two people on two shifts.

A pilot project was undertaken to revise the sign manufacturing reporting procedures to enable local managers to compare the cost of MTC-produced signs to those obtained from private firms.

A revised reporting document was developed to reduce the time spent on paperwork by patrols and field crews. This document was field tested.

Signs and Building Permits

Building permits issued by the 18 districts under policy direction of head office totalled 2,013 with a total value of $199,688,933.10.

The number of field advertising permits issued was 7,569 valued at $263,690 and 2,773 guide sign permits generating $59,358 in revenue.

Other permits included: 1,125 encroachment permits valued at $69,559; 1,342 entrance permits valued at $32,450 and 1,785 location, portable and temporary sign permits valued at $45,732.

Equipment Engineering

Some 17,000 pieces of equipment, ranging in size from 10-ton snow plow units to chain saws were operated by the ministry to enable it to provide its various services across Ontario, equipment costing approximately $78-million.

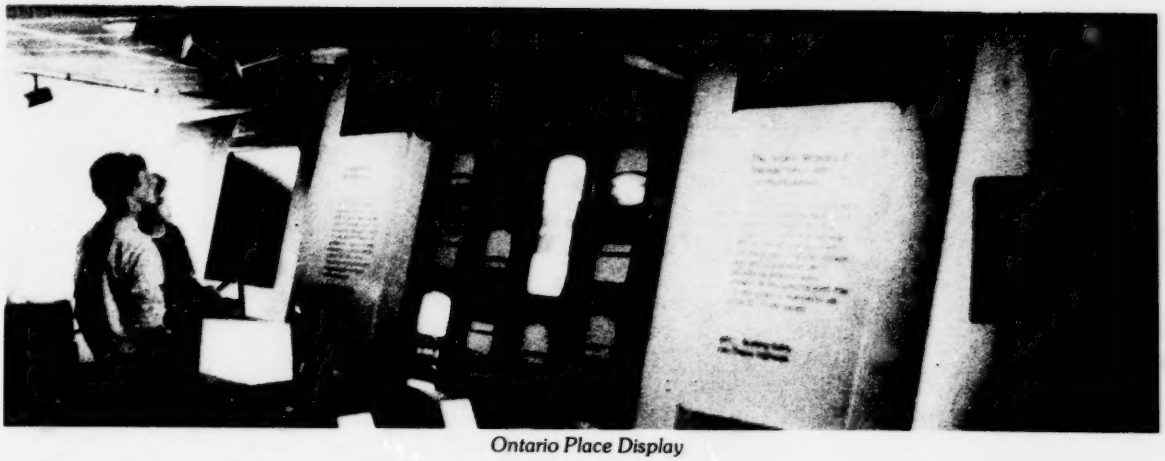
During the year, office staff continued to discharge its functions by:

- establishing the policy under which equipment will be operated, repaired and maintained;
- providing training for equipment supervisory and technical staffs;
- specifying and initiating requests for new equipment;
- building certain specialized equipment;
- evaluating new equipment likely to be of use to MTC; and,
- providing fleet services for head office.

Highlights for the year were:

- presenting a report on the ministry's progress in privatizing a portion of its equipment repairs;
- completing a study to improve the ways the equipment inventory system is maintained;
- resolving numerous technical problems and informing all districts of solutions;
- continuing to co-ordinate MTC's province-wide safe driving roadeo held in 18 districts and head office;
- expending $7.7 million in new equipment, of which major acquisitions were 11 six-ton trucks, 27 five-ton trucks, 104 light trucks, and 30 diesel powered sanders;
- converting three zone striping units from rear single-axle cold-paint machines to tandem rear axle hot paint machines, thereby improving productivity;
- evaluating numerous new pieces of equipment, including a grader designed by Alligrader, Ottawa, as an alternate Class "101" grader; Ford and Chevrolet mini-pickups which give significant reduction in fuel consumption compared to our standard sized units; a new weed-spraying piece of equipment, mounted on a track vehicle supplied by Universal Go-Track who have now established an Ontario operation; tungsten carbide snow plow blades from potential new suppliers, and a diesel powered sander from Commercial Vans Limited, Malton.

Personnel also found ways to economize internally. During the year, the number of permanent staff was reduced from 66 to 60.



Ontario Place Display

Traffic Management and Engineering Office

Office staff developed policies, procedures, standards and specifications, provides technological leadership and carried out development, in the areas of traffic signs and markings, signals, electronic control systems, electrical design and maintenance, freeway traffic management, traffic devices, traffic accident data and traffic analysis. They also provided program delivery in electrical design for all regions except Central Region.

In Traffic Signing, new policies and sign standards included new pavement marking standards for ramp merging and diverging areas; new signs for municipal airports; and new symbol sign designs for "No Right Turn on Red", "Yield Ahead", "Dangerous Goods Route" and "Dangerous Goods Prohibition".

A bilingual signing package was issued for MTC use which included updated and newly developed french language signs. Work was initiated on review and revision of curent freeway guide signing policy.

A revision to Highway Traffic Act regulations stipulates that speed limit signs are legal with or without the km/h legend. While km/h tabs may now be removed, they will be maintained on provincial highways for a further period for advisory purposes. A review of the highway numbering system did not recommend major changes in the current system but provided a framework within which future proposed changes could be evaluated.

In traffic signals, work was initiated on guidelines for left-turn lane design and controls; traffic detection devices for traffic signals; and a signal operation manual. Revised traffic signal warrants introduced the previous year were monitored and assessed as being generally satisfactory.

Operational improvements to the ministry's standard model 170 traffic signal controller software were implemented.

Electrical design and development staff (highway design office) and the electrical maintenance personnel (maintenance operations office) were transferred to the traffic management and engineering office in April, 1982.

These sections, along with electronic control systems, were amalgamated to form the electrical engineering section in January, 1983. During this year, 77 electrical design projects were completed for all regions, except central, with a total construction value of $1,960,000.00.

A review of the MTC's highway illumination policy was initiated. Development was carried out on new material, programmable lighting, revisions to standard electrical drawings and specifications, along with continuing development and modifications to the Model 170 traffic signal controller. There were approximately 250 Model 170 traffic signal controllers in operation throughout the Province.

Technical support was supplied to the electrical maintenance forces through direct contact and the periodic issuance of a newsletter outlining improvement in equipment, material and installation and maintenance techniques.

The Municipal Traffic Control Systems (MTCS) project, initiated by MTC, progressed beyond the initial three-city demonstration. Mississauga awarded a contract for the installation of an MTCS system while London and Brampton were preparing to issue specifications for similar systems. In some cities, the use of cable TV coaxial lines was considered for communication between the central computer and traffic controllers.

MTCS feasibility studies were underway in Windsor and the Region of Niagara. The ministry provided both technical and financial assistance for these projects.

In traffic development and analysis, development continued on electronic control devices, included "Too Fast" signs and overheight vehicle detectors, and special signals. Extensive technical and operational support was provided for other groups in MTC in the areas of electronic devices, freeway traffic operational problems and highway design features related to traffic operation and safety.

Development work on microprocessor-based permanent traffic counting stations with telemetry capabilities resulted in the establishment of test sites at the Port Severn and Dixie stations. Further evaluation continued. An evaluation of microprocessor-based roadside traffic counters was initiated.

Further improvements were made to the traffic accident information and retrieval system. Accident data was provided for a large number of traffic engineering studies and information requests.

In traffic analysis, staff administered and assisted in traffic operation studies for Cambridge, Timmins, Mississauga, Brampton, Windsor, Goderich and Niagara Region. The annual monitoring of vehicle operating speeds on provincial highways continued.

In freeway traffic management systems, work continued on the preliminary design of the Highway 401 system in the Metro Toronto area. Following completion of the feasibility design study for a system on the QEW in the vicinity of the Burlington Skyway, system implementation was approved and work began on the preparation of contract documents for the tendering of the construction of the system. A feasibility and preliminary design study was also initiated for a system on the Ottawa-Queensway. Weekday morning, peak-period operation continued on the eastbound QEW in Mississauga.

Safety and Regulation

The Minister initiates the "Plate to owner" system

This area is responsible for the licensing of vehicles and drivers, safety standards and the promotion of safety on the highways.

It also oversees the government's involvement with the inter-city bus and truck industries, administers the licensing of for-hire vehicles under federal and provincial acts — and enforcement of these acts.

During the year, this area underwent a major reorganization in preparation for the introduction of the new "Plate to Owner" licensing system and relocation of some drivers and vehicles staff to Kingston, Ontario.

Transportation Regulation Operations Division

The division is made up of the Licensing and Control Branch, Compliance Branch, Systems Improvement Office and Resources Co-ordination Office.

Resources Co-ordination Office

This office was established to ensure an appropriate number of staff and financial resources for management of the Transportation Regulation Operations Division and Transportation Regulation Development Branch.

Staff monitored all program and sub-program delivery areas within the purview of the ADM, Safety and Regulation, to ensure adequate service levels were maintained and resource utilization efficiency maximized. They also maintained an inventory of personnel capable of fulfilling all program needs.

Program Administration Office

Staff promoted the delivery of uniform drivers and vehicles programs to the public, provided policy directives, operation procedures, technical expertise and training courses for vehicle inspection and highway carrier field staff.

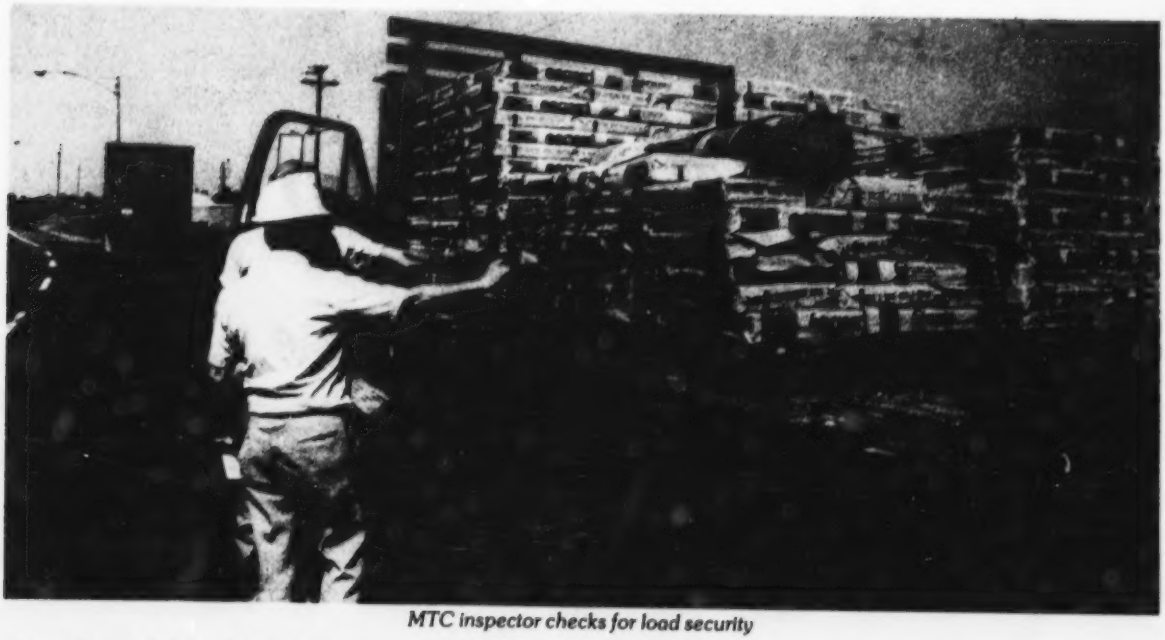
Program administrators assisted the division in development of new or amended legislation and co-ordinated implementation of new vehicles programs.

Compliance Branch

Promoting a regionalized program, branch personnel were responsible for the highway carrier licensing, office, investigation and prosecutions, program admin, prorate and reciprocity, weights and dimensions, vehicle standards and dangerous goods transportation offices.

Programs were continually monitored to insure consistency with governing legislation, policies, and procedures, providing coherent direction of enforcement officers in the compliance of economic regulatory control legislation and the Highway Traffic Act.

In addition, staff, in conjunction with transportation regulation development, insured a program which reflected an awareness of Ontario's needs, relationships with other jurisdictions and the exchange of compliance information. Significant developments and new initiatives within the transportation industry were also reflected with an aim to respond to the factors which affected development of Ontario's transportation industry and



MTC inspector checks for load security

which influenced the mobility of goods and people.

The education, cooperation and communication with both the regions and the industry were continually under examination and development toward an effective program.

Systems Improvement Office

Staff responsibilities were expanded to include systems development and maintenance for the total safety and regulation program. Short term initiatives in the drivers systems area in support of the Kingston move of a portion of the drivers operational section were completed.

The introduction of a program-wide management reporting system proceeded as scheduled and associated work measurement efforts were started. Other initiatives underway were in the vehicles and compliance systems areas, along with major forms design and procedure manual writing activities.

Dangerous Goods Transportation Office

Staff provided co-ordination and acted as focal point for the Ontario strategy on the transportation of dangerous goods. It responded to national initiatives in the area of public safety and developments on a nationally uniform code for the transportation of dangerous goods.

They also participated in the development of the code under the auspices of the Canadian Council of Motor Transport Administrators (CCMTA).

And personnel also assisted in the further development of Ontario legislation to complement the Transportation of Dangerous Goods Act, Statutes of Canada, Chapter 36. The Ontario act received Royal Assent in December of 1981, providing the basis for adoption of the nationally uniform code for on-highway transportation in the province. Current work on the act will facilitate compliance enforcement and resolve conflicting requirements in other Ontario legislation.

Staff also continued work and negotiations on a Canada-Ontario agreement to delineate jurisdiction and responsibilities for the administration of the dangerous goods regulatory regime; participated in seminars for shippers, carriers, and users of dangerous goods, sponsored by industry associations; and, otherwise ensured wide dissemination and awareness on the status and scope of the Ontario program to further public safety.

To ensure that Ontario municipalities are aware and gain an understanding of the federal and Ontario legislation, regulations and associated support services provided by the office, staff continued to provide information and presentations to individual municipalities and municipal interest groups.

Various information posters and other materials were produced and distributed to raise the awareness and ability of the ministry's on-highway personnel to recognize and cope with potential hazards encountered in their day-to-day work or in case of an accident involving dangerous goods' cargos.

Technical and program information was provided to industry, the media, general public and on-highway enforcement personnel.

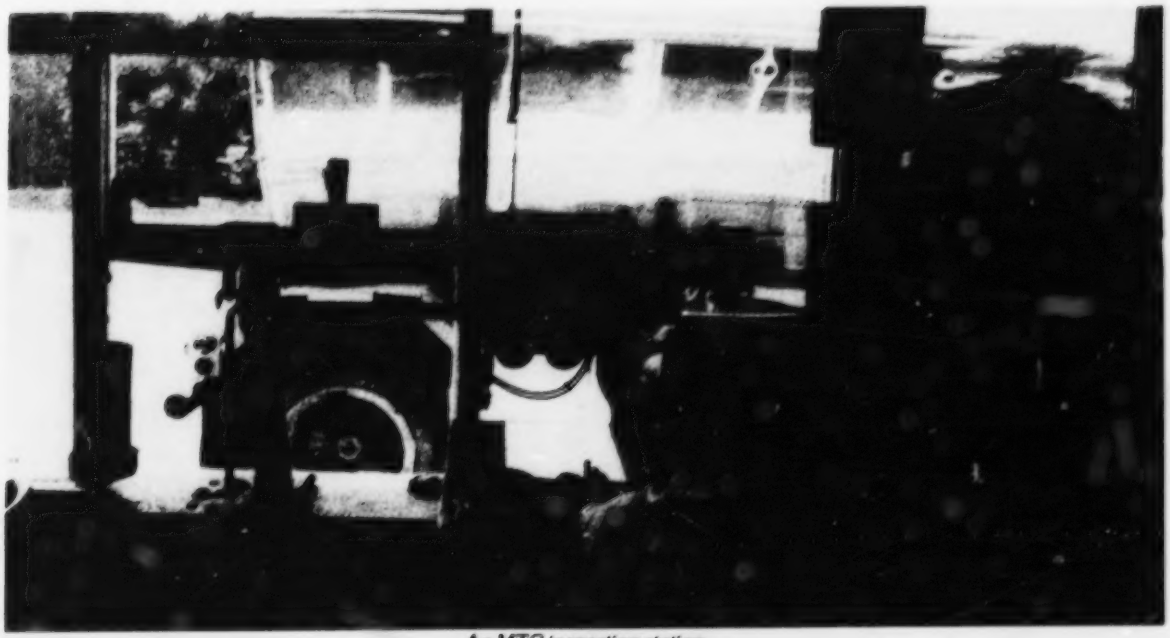
Individual Ontario program components, such as the Ontario Dangerous Goods Transportation Act, the Federal-Provincial Agreement, elements of the awareness program and details of the planned staff training program for Ontario compliance enforcement staff have been distributed to the other provinces and jurisdictions involved in the national program and are accepted as models by these agencies.

Investigations and Prosecutions Office

Investigations and prosecutions staff were responsible for insuring compliance with the Public Commercial Vehicles Act and the Public Vehicles Act by the highway carrier industry.

Over the past five years, a comprehensive off-highway enforcement system was developed for the conduct of in-depth investigations, requiring examination of all books, records and documents of licenced carriers. In the past year, there was increased activity in examination of licenced carriers' books, to establish if their operations were in compliance with the terms and conditions of their operating licences.

In the 1981-1983 fiscal year, 4,677 cases were placed before the courts for contravention of the Public Commercial Vehicles Act, the Public Vehicles Act, and the Motor Vehicle



An MTC inspection station

Transport Act (Canada). Approximately one half involved purported leasing arrangements.

A comprehensive training program, developed by staff taught all aspects of knowledge required by an investigator was concluded in the fall of '82 because sections had been established in eastern, central and southwest regions.

Another was retained at head office to conduct investigations in northern and northwest regions, as well as those generated by head office.

Interprovincial liaison and cooperation was assisted through the ongoing Interprovincial Conference on Communications and Investigations, held in Quebec City in June, 1982. Also, the publication of an interprovincial compliance reference guide greatly enhanced the working relationship between Canadian jurisdictions.

In addition, reciprocal arrangements to serve summonses, subpeonas, notice of hearings and conduct of joint investigations were created. Under this arrangement, some 1,344 summonses were served by other jurisdictions for and on behalf of Ontario.

Personnel also provided policy dissemination and advice to field operations regarding investigations activities while reviewing its compliance procedures, methods of information management, strategic and tactical planning.

Highway Carrier Licensing Office

Staff was responsible for monitoring of Ontario Highway Transport Board certificates for compliance with the Public Commercial Vehicles and Public Vehicles Acts and the Motor Vehicle Transport Act (Canada); collection of revenue and the issuance of operating and vehicle licences associated with the board issued certificates of public necessity and convenience.

During the past fiscal year, 4351 certificates were processed, 2965 new and amended public commercial vehicle and public vehicle operating licences and 73,513 vehicle licences and plates issued.

Reciprocity and Prorate Office

Staff administered Ontario's participation in the Canadian Agreement on Vehicle Registration (CAVR). Commercial motor vehicles and buses registered under CAVR pay registration fees in proportion to the percentage of operation in each member jurisdiction. In 1982-83, Quebec, Nova Scotia and Newfoundland implemented the agreement, leaving Prince Edward Island as the only non-participating province.

The CAVR system registered 19,000 vehicles and collected $11 million in registration and administrative fees.

Personnel also administered existing, and assisted in negotiated new reciprocal agreements for commercial vehicle registration between Ontario and other North American jurisdictions. During the year, agreements were signed with South Dakota, Illinois, Maryland and Prince Edward Island. This brought the total number of agreements to 32.

In addition, they responded to a number of proposed new and amended federal standards effecting the manufacture of new motor vehicles.

Personnel also assisted police in their investigation of a number of accidents involving heavy commercial vehicles, served as expert witness at coroner's inquests and court trials and responded to coroners' jury recommendations.

Weights and Dimensions

This office was established in mid-year to assist in the preservation of the highway system while meeting industries needs for efficient transportation.

- to review and issue permits which exceed routine guidelines and/or as inter-regional
- to review existing policies and recommend changes
- to interpret and communicate ministry technical requirements for vehicle weight and dimension controls to O/O permit issuing staff, vehicle and trailer manufacturers, and the heavy haulers of Ontario and out of province
- to monitor and audit both technical and fiscal aspects of O/O permits issued across Ontario
- to assist in development of fixed, semi portable, and mobile weighing equipment systems and truck inspection stations, including weigh in motion and vehicle sorting devices

During the past fiscal year head office staff in Downsview issued 3,756 annual, project and single trip permits. And 200 applications for permits in excess of routine guidelines were received and reviewed for permit issuance.

Transportation Regulation Development Branch

Motorcycle testing at the John Rhodes Centre

Program Evaluation Office

Office staff played an active role in evaluating and refining its structure and objectives, defining the various program functions and needs of reporting results.

During the year, the revised MBR guidelines were implemented and integrated in the program planning process for 1983-84. Refinement of the many indicators within the results spectrum continued.

Special projects included an assessment of off-highway compliance investigations and a study of program revenue collection.

Continuing projects included a study on the causes of fatal accidents and a measure of public satisfaction through monitoring the minister's mail.

Safety Co-ordination and Development Office

Personnel initiated and coordinated development and implementation of highway safety policies and programs and provides consulting and support services to the highway safety coordinator.

In fulfilling its mandate, they compiled and published annual provincial accident data, monitored accident trends including the 1982 reduction in fatal accidents; administered the secondary school driver education program; coordinated the safety research program for the ministry, including the development of a new driver education text and curriculum and an evaluation of the probationary driver licence system; and assisted in coordinating safety information activities including an update of the driver's handbook.

In an attempt to assess and develop highway safety countermeasures, staff maintained liaison with safety researchers, provincial and municipal police forces, school boards, driving school associations, private industry and other provincial and federal agencies. In addition, they served in an advisory capacity to the Ontario Commission on Truck Safety, the Motor Vehicle Safety Association, the Hamilton-Wentworth Council on Road Trauma, the Ontario Advisory Council on the Physically Handicapped Transportation Committee.

Staff also served on safety-related committees for the Ontario Safety League, the Canada Safety Council and Ontario Traffic Conference, and provided input to national safety strategies through participation on the traffic safety programs committee of the CCMTA.

Project Development Office

Staff undertook investigation and development of policies, legislation and regulations affecting drivers, vehicles and truck and bus industries. Some 30 projects were completed; these included new regulations for the vehicle registration system, child restraint legislation, amendments to the Motorized Snow Vehicles Act, and various cost-cutting and regulatory reform initiatives.

In addition, they provided chairmanship and support services to the legislative review committee in the review of draft policy, legislation and regulation pertaining to this program. Consulting and support services were provided also for various internal and external committees and task groups such as the Commission on Truck Safety, the Intercorporate Trucking Committee and the ad-hoc committee on log hauling.

Vehicle Standards Office

Staff provided consulting service to MTC and other ministries, police, lawyers and the public in matters related to vehicle legislation, standards and performance. They also recommended and assisted in the development of legislation and regulations.

They also took a leading role in the drafting of vehicle standards such as chairing the Canadian Standards Association committee responsible for the development of a national standard for the construction and equipping of vehicles used for the public transportation of physically handicapped persons.

Bus Transportation Office

Personnel was responsible for the development of programs, policies and legislation concerning intercity bus transportation in Ontario.

Activities included negotiation of a reciprocal agreement for bus safety inspections with the State of New York; development and implementation of the mechanism for the approval of bus

tariffs under the administered prices program; responding to discontinuances of intercity bus and rail passenger services; and, most importantly, initiation of an Ontario bus committee which addressed two important issues affecting the intercity transportation of passengers — those being mobility in rural areas and major corridors.

They were also members of the newly formed CCMTA working group on buses, carrying on the work of the former CCMTA task force on "Transportation of Disabled Persons in Intercity Buses", as well as raising and studying other broad national issues surrounding the provision and regulation of intercity bus transportation in Canada.

PCV Act Review Committee

In May, 1981 the minister appointed a committee of 24 representatives of manufacturing, shippers, carriers, labour and government to conduct a fundamental review of the Public Commercial Vehicles Act. He asked the committee to examine the basic structure of the legislation and to recommend new principles for economic regulation of trucking in Ontario.

Members met approximately once per month over the past year and a half. In November, 1982 they published a discussion paper outlining the needs for reform, plus new directions for the legislation. Four thousand copies were distributed throughout Ontario and other provinces.

The response to the paper indicated support for reform from all related sectors, especially for reducing legislation complexity and strengthening enforceability. At the same time, some fears of change and market disruptions were expressed.

At the close of the fiscal year, the committee was engaged in devising appropriate legislative mechanisms which would produce the desired reforms while preserving an active and viable market. Final recommendations to the minister were due at the end of May 1983.

Truck Transportation Office

Staff expanded its sphere of operations in 1982, providing a government focal point for ensuring responsive and efficient highway transportation of goods within Ontario and between other jurisdictions.

To accomplish this, liaison was maintained with individuals, the trucking industry, officials of other Ontario ministries, other jurisdictions, federal government, Canadian Conference of Motor Transport Administrators, and American Association of Motor Vehicle Administrators.

Proposals were developed for reforms and refinements to the Public Commercial Vehicles Act and Highway Traffic Act, and staff assistance was provided to the Public Commercial Vehicles Act review committee. Development commenced on a program to monitor the impact of intercorporate trucking, and assistance was provided to the reciprocity and dangerous goods programs.

During the year, transportation pricing information was provided for other ministry modal offices and small business enterprises were assisted with transportation problems.

Ontario Committee on Truck Safety

During the year, the Committee on Truck Safety, chaired by Dr. Robert Uffen of Queen's University, wrapped up a series of public meetings held in centres across the province.

The committee also studied more than 80 briefs, in addition to holding private interviews and considering the comments of interested groups from industry and the general public.

Its mandate was sufficiently broad to allow the committee to investigate all non-economic matters pertaining to truck safety, including: driver standards; vehicle standards; rules of the road; enforcement; sanctions; public and industry perceptions.

As part of the investigation, Dr. Uffen arranged for a demonstration of over-length trucks on Highway 401 in June, 1982 so he could personally observe their operation in traffic.

Drinking and Driving Task Force

At the request of Premier William G. Davis, the Ministry of the Attorney General set up an interministerial task force to investigate drinking and driving.

MTC staff appointed to the task force worked closely with other members to maintain liaison with citizens groups and encourage grass root community involvement.

Task force members also investigated ways to change social attitudes towards drinking and driving.

Licensing and Control Branch

Kingston Relocation and Reorganization Project

As part of this project, the interim services-production organization came into existence on April 19, 1982 when half of the drivers and vehicles production staff moved from Downsview to Queen's Park. The other units moved to share the same floor in the Ferguson Block with the first group. At the same time, 67 service people from Queen's Park were shifted to Downsview.

The purpose of the interim move, separating the service and production sections of drivers and vehicles, was a trial to see how the system would work after the Kingston move.

Encouraged by the results, the licensing ops office was scheduled to move to 51 Queen St., Kingston, and commence operations on April 25th, 1983.

Phase II of the program was slated to relocate the field support, financial and stock control and support services to 118 Princess St., Kingston in August 1983.

Operational Policy Office

This office was formed in January, 1983, as a result of the reorganiztion of the licensing and control branch. It had a complement of 20.

Staff was responsible for development of new operational policies and procedures, the evaluation and revision of current operational policies and procedures, the monitoring of field and head office operations to assure consistency of the administration of operational policies and procedures, and staff training to meet changes in policy and procedures.

Personnel covered three major subject areas, each having a co-ordinator and support staff, including: vehicle licensing and control; driver examination and certification; and, driver improvement.

Driver Improvement Office

This office was responsible for ensuring adherence to standards established for the licensing of drivers and monitoring drivers' post-licensing activities. This was accomplished through the activities of two sections: driver control and medical review.

Driver control entailed maintenance and administration of the demerit point and probationary driver systems, and administration of licence suspensions and reinstatements related to driver behaviour and attitude.

Medical review staff were responsible for ensuring drivers required to file periodic medical reports as a requirement to maintain their class under the classified driver licence system, and, drivers identified as having medical conditions making it unsafe for them to operate vehicles, were monitored. They were also responsible for the administration of medical related licence suspensions and reinstatements.

Both sections contributed to the maintenance of an accurate cumulative operating record of each Ontario driver.

1982

Licensed Drivers	**5,247,198**
Male	**2,989,916**
Female	**2,257,282**
New Drivers	**222,143**
Demerit Point System	
Warning at 2 to 8 point level	**129,104**
Interview at 9 to 14 point level	**37,016**
Suspensions at 15 or more point level	**6,176**
—First 15 point accumulation	**5,498**
—Subsequent 15 point accumulation	**678**
Suspensions at 6 or more point level (Probationary Drivers)	**6,843**
Suspensions for physical or medical reasons	**3,046**
Suspensions for drinking and driving	**44,111**

Licensing Administration Office

This office was responsible for answering enquiries from the public, from government agencies and other groups regarding the policies, regulations and legislation governing driver and vehicle licensing in Ontario. In addition, it provided a search service of driver and vehicle records for the public and other agencies.

Over the past year, staff members answered 66,900 items of correspondence, 477,800 telephone calls, made 175 court appearances and assisted 58,800 clients at the counter. They also processed a total of 2,703,500 driver and vehicle searches, 66,800 requests for motor vehicle accident reports, and verified information on 776,400 summonses for the Metro Toronto summons bureau.

Staff also provided administrative support to other offices of the branch in Toronto in record maintenance, typing, revenue control, mail distribution and computer output quality control.

Field Support Office

This office, a component of the production organization to be located in Kingston, was responsible for providing an enquiry service to the 309 appointed issuing agents, 11 MTC offices and 71 driver examination centres.

It was also responsible for monitoring the performance of the field offices, the quality of documentation and the accuracy of the driver and vehicle files.

Financial and Stock Management Office

This office, also a component of the production organization to be located in Kingston was responsible for collection and consolidation of all revenue related to driver and vehicle production activities and; the overall control of the current long range requirements for driver and vehicle production related stock and material.

Support Services Office

Office staff is one of four organizational components relocated to Kingston. It consists of the former — data entry section, driver and vehicle microfilm group, typing and mail distribution functions.

As such, staff were responsible for production of 9,800,000 microfilm records and 5,926,500 computer program readable card and/or magnetic tape records.

In addition, more than 56,000 issuer report submissions were received and 1,000,000 sets of plates scrapped, including returned stock and plates from junked cars.

Finance and Administration

Culvert construction on a King's highway

Transportation Capital Branch

Personnel were responsible for program planning, development, priority setting, expenditure control, monitoring and program evaluation for both the construction and maintenance elements of the provincial highway program.

The Branch has three functional units: highway program planning office, highway program administration office and capital investments office.

Highway Program Administration Office

The administration of this program, including the operational plan, the construction plan, program budget control and project control were the responsibility of this office.

In co-operation with the Highway Engineering Division and five regional offices, a first-generation provincial highways operational plan was developed. It identified administrative, design, construction and maintenance work to be undertaken over the next few years.

From the operational plan, a multi-year construction plan was developed to provide management with the information necessary to direct and monitor capital construction expenditures within a constrained financial environment. A concise look at the current year of this construction plan was provided to the public and Legislature through the annual Construction Projects Report.

The budget was co-ordinated and in-year expenditures monitored and controlled. Recommendations for adjustments due to variations in work plans, constraints and new initiatives were handled. Advance notices of contract tenders were prepared and issued to members of the Legislature and press, providing the best information available on provincial highway construction.

Senior management was provided with regular financial status reports. Also, special statements were provided on the Board of Industrial Leadership and Development, transportation investments, job creation activities and The Ministry of Northern Affairs, regional priority budget and special projects.

Sophisticated computer systems were used in the process of individual project control. Critical path method construction schedules were provided as information to bidders on most major projects and were also used to monitor progress on projects underway. The construction resources evaluation package was used extensively to determine construction staffing requirements. The expenditure forecast system provided a calendarized expenditure flow on approximtely 1300 projects in the construction plan. In addition, project values and pre-engineering status were monitored using computer systems.

Highway Program Planning Office

Office staff, with supporting sections, planned and coordinated future development of the provincial highway program. Functions included annual long-range planning; development of program/sub-program/activity priorities; development of system policy; coordination and synthesis of highway planning information; and evaluation of program performance and effectiveness.

Through its manager, the office also provided staff support to the chairman of the Provincial Highways Program Committee.

Long-range planning (LRP) involved analysis of issues and demands to match products and services to future requirements. Specifically the LRP involved a calculated speculation of future program issues, financial outlooks and system needs to determine the program future emphasis.

LRP also involved analysis of financial outlooks, public perceptions, major priorities, personnel implications, automation and technology, strategic directions, privatization and other external factors to arrive at program alternatives in capital, maintenance, design and program administration. Specific five- year targets were developed in various aspects of the program so that program products and services properly matched future requirements and emphasis.

Staff developed 10 major issues which included such areas as automation, technology, privatization, human resource management, program evaluation; and strategies were developed for each issue to provide corporate direction to operational units.

Program evaluation assessed the effectiveness of the program in terms of measurable public benefits and provided information on the relative significance of various sub-programs as well as monitoring results through MBR reporting.

Program priority planning carried out analysis and development of system rehabilitation and system expansion priorities to obtain benefits for the overall provincial highway program. Priority analysis determined funding to be allocated to each sub-program and activity and identified priority on system improvements and changes.

System analysis developed policies ensuring provision of equitable and adequate services on the highway system. The extent and location of system improvements, impacts of level of service changes and variations in quality and quantity standards were analysed to guide management decisions.

Information systems function collected, procesed and synthesized information to support the overall planning and management of the program. In addition to providing significant technical data and other information for internal use, including background for the "Highway Distance Table" and "Traffic Volumes King's Highway and Secondary Highways".

Capital Investments Office

Restraints required that capital investments be managed carefully. They prevented service "needs" being met in all programs, requiring difficult choices on funding and timing of capital initiatives. to aid in these decisions and tie them more closely to the MTC strategic planning guidelines, more comparable information and a coordinated approach toward capital investments and trade-off opportunities were needed.

This office provided consolidated capital planning and management information and recommendations on proposed and active transportation capital investments. Established in January, 1983 as part of the strategic organizational plan, capital management was emphasized.

Staff objective was to achieve the "total transportation capital investment", facilitating effective use of available capital funds within four transportation programs: provincial highways; provincial transit; municipal transit; and provincial transportation/air.

Procedures were established to provide:

- a common framework for comparable data from the various programs on needs, impacts and technical priorities for capital initiatives;
- analytical evaluations of trade-offs and priorities for capital investments proposals;
- a stronger base of information for analysis of budgets to aid in the program's capital allocations and any in-year adjustments; and,
- ongoing monitoring and status reporting on transportation capital undertakings (four programs) for the MTC executives and program managers.

This capital management effort provided the ministry with a mechanism for setting technical priorities an subsequently, determining trade-off opportunities for capital investments in response to ministry and program objectives.

A general framework of operating procedures was endorsed for integration with current practices. This approach will be given practical testing in the 1983-84 fiscal year, and it is anticipated these new procedures will be fully operational for the 1984-85 fiscal year.

Computer Systems Branch

Branch staff primarily provided system development, systems maintenance and production services on a cost-recoverable basis to client organizations within the ministry. They also provided operational support for MTC's distributed data processing systems and peripheral equipment connected to the mainframe computers, as well as technical consulting advice on potential productivity improvements in business processes.

Systems development and maintenance services were provided through four branch offices: transportation systems, management information systems, drivers systems and vehicle systems. Production services were provided by the regional liaison and production services office.

Systems planning support staff provided specialized technical and planning support services to the branch as well as client organizations.

During the past fiscal year, an internal study of the computer services was conducted by the Management Improvement Branch. As a result, a number of activities were initiated to improve the efficiency and effectiveness of these services. As well, the branch mandate was expanded to include the provision of planning support services to MTC's strategic and long range planning processes.

Each development office was organized to provide services to clients on a program basis, where before, more than one branch office sometimes provided services to organizations within the same program.

Branch personnel monitored total ministry expenditures on automated data processing activities and reported such information to ministry's management as well as central agencies. In 1982/83 the total ADP budget for MTC was approximately $17 million.

This past year a micro-computer resource centre was established to act as a focal point for micro-computer support in the ministry. It provided potential users with a facility for obtaining "hands-on" experience with several different micro-computers and variety of application packages. In operation for only a few months, this centre has already assisted a number of users in preparing feasibility studies and in selecting and acquiring micro-computer equipment and software.

Two new functions were planned for 1983/84: corporate planning support relating to the introduction of computer technology in the ministry; and specialized end-user software support.

New VRS computer equipment at Queen's Park

Driver and Vehicle Systems Office

This office provided systems development support to the safety and regulation program. Driver registration support was concerned mainly with the administration of the Ontario Highway Traffic Act (HTA) for Ontario drivers.

Staff in this area were also involved in a major review of the system to streamline the business processes and to respond to new initiatives. Significant cost reductions were achieved in such areas as postal rates, printing charges, microfilming and keypunching operatons.

Major organizational changes in the client community (move of some functions to Kingston) required innovative changes to system input processes and data transmission concepts. External influences such as the freedom of information legislation were also incorporated into the review of the system.

Vehicles systems underwent drastic change over the past few years to become Ontario's largest, on-line information system. Staff in this area worked on the development team that successfully implemented it on December 1, 1982.

The main vehicle data bases, capable of storing more than 10 billion characters of information, were centralized at the Downsview computing centre. Minicomputers, accessing these data bases via telecommunication channels, were installed at all 350 vehicle license issuing offices and MTC offices throughout Ontario. More than 1,300 video display terminals and printers are included in the network.

Major innovations in this new system included: Plate-to-Owner concept; staggered renewals; flat fee; and denial of registration for owners who had unpaid parking tickets or who issued nsf cheques to MTC.

With a computer terminal in each office, transactions were processed much more quickly and up-to-date information recorded, stored and made available to members of the public, police and courts much more efficiently.

Transportation Systems Office

Office staff provided software application development, maintenance and productivity support services to three MTC programs: provincial highways, provincial transportation and municipal transportation.

About 50 operational systems were maintained in support of structural design, hydrology, road design, transportation planning, research and traffic engineering activities — systems which supplemented the production process in every facet of highway design and transportation planning.

Due to their universal application, several engineering computer programs were requested and given to other government agencies, municipalities, universities and consultants for local computer installations. The ministry's simplified transportation planning package was in use in most Canadian provinces.

Major projects completed included:

- The Share-a-Ride System was implemented to facilitate car-pooling;
- The road design system was made more productive by providing interactive operation of the automatic plotters in regional offices;
- Highway interchange design capability was enhanced by acquiring an interchange modelling system (MOSS) from Great Britain; and,
- Highway bridge information on clearances and load capacities was made accessible to the public and trucking industry through on-line computer terminals.

Management Information Systems Office

Personnel were primarily responsible for providing system development and maintenance services to the communications program and organizations reporting to the ADM Finance and Administration.

In addition, MIS Office staff were responsible for the development and support of financial, administrative, decision support type systems in all ministry programs. Some of the major systems are the operations management system (OMS), ministry financial systems, performance budgeting, human resources inventory system, and the provincial highways inventory system.

Development of the OMS, which captures and reports on MTC accounting and operational information, concentrated this year on interfaces with other systems. New interfaces with the revenue control sytem and the cheque reconciliation system were added while interfaces with the daily expenditure system and the maintenance management system were extended and enhanced. As well, access to OMS data via a fourth generation language was introduced.

Major accomplishments in the financial systems included the enhancement of the unclassified payroll, the cash disbursement and commitment ledger systems which can now be monitored on-line at the five regional offices.

The performance budgeting system was enhanced by the addition of reports that address to a greater degree the variability of the needs expressed by management in different parts of the ministry for operational information.

The ministry's human resource inventory system was enhanced to produce quantitative reports that assist management in manpower planning.

Supply and Services Branch

This branch was responsible for the provision of a wide range of administrative services as described in the following office and section descriptions. It was also responsible for development of MTC policies and procedures covering each of these services and for the monitoring of their effectiveness. Others are also provided to the Ontario Highway Transport Board, Ontario Telephone Service Commission and Ministry of Northern Affairs (MNA).

Systems Planning Support Office

Staff provided technical support to not only the systems development offices but client offices throughout the ministry. Some included:

- Short and long-range system planning;
- Development and introduction of improved methods and techniques for systems development;
- Development of policies, procedures and standards;
- Systems quality assurance and performance measurement;
- Evaluation and introduction of productivity improvement tools for systems development;
- Technical consulting advice/assistance;
- Operational support for distributed data processing networks; and
- Evaluation of hardware and software alterntives and assistance with acquisitions processes.

Regional Liaison and Production Services Office

This office was responsible for provision of the following services to MTC users as well as municipalities and engineering consultants working on Ministry projects:

Central data entry, technical support to batch systems and plotter services for business and engineering applications, in support of operational MTC computer systems; security and backup services for information and programs, acquisition and inventory control of peripheral computer terminal equipment such as terminals, printers, system documentation library and liaison with head office and the five regional offices in the area of operational system needs.

Information Management Office

Staff were responsible for providing assistance to MTC and MNA in the efficient and cost-effective management of recorded information.

Information analysts provided extensive services relating to the management of MTC information, including the development of indexing and classification systems, identification and scheduling of Ministry records, and the evaluation and selection of office equipment.

Over 6,000 cubic feet or 13,500,000 records were disposed of in accordance with approved retention schedules, resulting in a cost benefit of $154,000 in reclaimed office space and equipment.

Similarly, over 143,000 records were transferred to the Ontario Government Archives, ensuring the permanent preservation of vital information. The microfilm unit filmed in excess of 1,100,000 hardcopy records, or approximately eight tons of paper.

Forms management staff continued their program of progressive improvement in the design, processing and control of MTC and MNA forms. To increase management control over the inventory, they developed and published a computerized catalogue of the 2,600 forms currently in use. The catalogue will be revised during the coming year to include more detailed management information.

Library and information centre staff provided library and reference resources for MTC and the transportation community, acquiring all publications and subscriptions to periodicals and newspapers. They provided reference services, computer searches, inter library loans and issued two regular publications, *Library News* and *Journal Contents*, to ensure all clients were informed of current acquisitions and holdings.

References and information requests exceeded 20,000. The centre was also designated as the "public reading room" to comply with the prescribed open government policy and in anticipation of the proposed access to information and privacy protection legislation.

Admin support personnel provided typesetting, arranged the printing, distributed and/or sold the 183 MTC manuals and amendments which are centrally controlled. In total, over 16,500 copies were distributed to ministry offices, other government institutions and the public.

They were also responsible for the availability, printing, inventory, sale and distribution of all MTC and topographical maps. In excess of 200,000 were distributed or sold.

In addition, they administered the printing, update and distribution of both ministry directives and engineering indices of technical data on all provincial highways. Computer-based management control systems for directives and manuals were developed and implemented.

The Office of the Future pilot project, established in 1980, became an approved organizational component during 1982. Staff provided administrative and clerical support services to the Internal Audit Branch, special services office, contract review section, claims and analysts group and payment verification office.

In addition, word-processing services involving lengthy reports were provided to Management Improvement Branch and Transportation Programs Division.

During the year, the office was used as a test-site for introduction of advanced processing technologies, the application of new ergonomic considerations and the evaluation of the personnel issues attendant to the integrated workplace.

Service levels, productivity, processing benefits, and degree of management support and user acceptance were monitored and will become the principal focus of the office during the coming year.

Purchasing and Supply Office

Materials and operating supplies staff were responsible for the purchase of all construction and maintenance materials and general ministry supplies totalling about $98 million.

Vehicles and equipment personnel acted in the purchase of vehicles and equipment through standardization of specifications and consolidated purchasing for all Ontario government ministries and agencies, totalling approximately $25 million.

Stores section staff allowed MTC to take advantage of savings by bulk purchasing, also facilitating MTC's operational function by having materials available for later use. They also reconditioned and stored Bailey bridge components for emergency use. Currently, there are 174 such installations in the province.

Using a VDT

Supply planning and disposal section staff facilitated the disposal of all used ministry equipment, surplus material and all Ontario government motor vehicles, via public auction or tender. Sales totalled $3.6 million. They also initiated a new inventory management program to reduce province-wide inventories by $550,000. Reviews of field operations are conducted as appropriate.

The movable asset control system consisted of approximately 43,000 items valued at approximately $100 million and was coordinated by this section.

Tenders Section

Section staff maintained strict security over all head office tenders. Approximately 6,547 were received and processed for 902 contracts while some 2,319 contractors/suppliers attended public-tender openings.

In advertising, some 354 insertions were placed in the news media regarding tender calls and public notices. Direct cash sales of contract documents, various construction-related manuals and MTC's Contract Bulletin produced a revenue of $115,830.

Graphic Services Office

Staff were responsible for the provision of a wide variety of commercial art, reprographic, offset printing and duplicating services in support of all ministry programs.

The graphic art and display section completed 212 requests for commercial art designs (over 3,100 singular items) and participated with a display at exhibitions located in Thunder Bay, Ottawa, London, Peterborough, Kitchener, Lindsay, Simcoe and Kingston.

In addition, displays were provided for various functions at Queen's Park and the Royal York Hotel. This section and all related activity was transferred to the Public and Safety Information Branch Nov. 1, 1982.

More than 20,300 requests for reprographic services were processed for the provision of high-quality, black-and-white and colour reproductions using photographic, diazo, screen processing and rapid turn-around photocopy methods. Approximately 15.5 million impressions were produced in the offset reproduction facility for which a charge-back system was initiated with recoveries in excess of $830,000.

Administration of the MTC and MNA identification card-issuing program is also their responsibility.

Special Services Office

Staff were responsible for co-ordinating a capital building program involving a major building, including office furnishings and equipment. They were also responsible for the provision of accommodation, telecommunications, office automation development services, postal services, instrument repair within MTC and administration of service centres on controlled access highways.

Construction of the John Rhodes Driver Examination Centre was completed while numerous projects involving new equipment installations were undertaken at head office, regional, and district offices.

Instrument Repair and Test Shop

Personnel had the only facilities in the ministry for repairing, calibrating, and environmentally testing highly specialized and very precise engineering instruments such as theodolites reading directly to one second of arc, first and second-order levels, other miscellaneous survey equipment, traffic counting recorders, solid state timers, detectors, transceivers, decoders, 170 micro-processors, monitors, switch packs, isolators, relays, and other miscellaneous electronic equipment pertaining to traffic signals control.

They were also responsible for acceptance testing all the 170 type microprocessor equipment for controlling traffic signals in this ministry, including software and hardware. These services were provided to all regions, districts, and head office. A charge back system was also implemented with recoveries of approximately $180,000.00.

Service Centres

Twenty-three service centres were in operation during the past year, 19 on the MacDonald-Cartier Freeway (401) and four on Highway 400. Revenue derived from the locations exceeded $4,900,000. Facilities and services, available at the centres on a 24-hour basis, included restaurants, washrooms, public telephones, first aid, motor vehicle fuels and lubricants, emergency towing, repair services and 21 picnic rest areas.

Essential services such as parking, washrooms, restaurants, telephones and water fountains were available to the physically disabled at all service centres.

Propane dispensing facilities were installed at centres. It was expected that a number of additional facilities will be constructed during the spring and summer of 1983.

Outdoor information facilities were maintained at two centres, enabling the motoring public to access basic travel, lodging, and local points of interest information on a 365-day/24 hour basis. Full service information booths were operated at 18 centres from mid-June up to and including the Labor Day weekend by the Ontario Ministry of Tourism and Recreation.

An inspection program provided coverage on all holiday weekends and most regular weekends. Co-operation between site management and staff resulted in a low level of customer complaints during the 1982-83 fiscal year.

At MTC's Downsview auction sale

Special Services Operations

Personnel were responsible for incoming and outgoing mail handling, courier mail service to all regional and district offices and Downsview teletype centre activities. The handling of a heavy volume of licence plates, permits, drivers' licences and returned licence plates was also a responsibility. Volumes of mail reached were: outgoing mail 1,817,157; incoming mail 3,612,841; and, teletype messages 164,669.

Personnel in the material control unit were responsible for handling moves, deliveries of supplies, furniture, etc., processing orders, and updating bulletin boards. Volumes were: moves 76; processing orders 5,890; deliveries 4,573; bulletin boards 94 hours; D & V material orders processed 43,888.

Telecommunications

Various telecommunications projects were undertaken in the past year, including the completion of the New Liskeard and Owen Sound mobile radio systems.

Teleconferencing continued to be used with increasing frequency. The existing system was not expanded in the past year; however, the system reliability was improved as the result of continuous representations to CNCP Telecommunications for better system monitoring, especially with regard to the automatic bridge arrangement.

The non-directional radio beacon program has ended with the takeover by Transport Canada of most of the existing sites. The Ministry-owned equipment at these sites will be retrieved, and presently, Special Services Office is assessing how the retrieval can be accomplished most expeditiously.

During the past year, some experimental work was done on development of an automatic phone patch for use with mobile radio systems during periods when radio consoles are unmanned. Some success was achieved and it is hoped that in the near future, it will be possible to produce a modified unit which will allow switched network access from any radio system repeater in the event of an emergency.

In the field of telephones and telephone systems, extensive changes in the Downsview and Queen's Park complexes took place, in particular, in telephone layouts for drivers and vehicles offices.

A new electronic key telephone system was installed in the strategic policy area and was well received by the users. This new system was the "Vantage 12" offered by Bell Canada.

Many other telephone layout changes were carried out in ministry offices as the result of organizational and personnel changes.

As the use of computers and word processing equipment increases, the requirement for communication and data circuits also increased and the past year saw a substantial number of such circuits installed.

Replacement of private wire teletype service for the handling of administration and road report information was again the subject of an in-depth investigation of alternative methods. The greatest promise for such a replacement system appeared to lie in the use of microcomputers and the dial-up facilities offered by common carriers.

During the past year the number of telecommunication-related orders issued and completed totalled 645.

Administrative Improvement Section

Staff conducted 18 word processing studies; 11 of the client areas completed the implementation. The remaining seven areas will not complete the implementation stage as funding has not been made available.

Post study involvement included selection and acquisition of word processing equipment, client training and development of special applications.

The applications development stage was designed to assist client areas in the development of time-saving applications, utilizing word-processing equipment and advanced software. Five client areas were assisted with the applications, development stage, undergoing system upgrades.

Internal Audit Branch

Staff continued its traditional audit activities for both Ontario Ministries of Transportation and Communications and the Ministry of Northern Affairs.

The branch's role, mandate and operating methods were reviewed in light of MTC's concern for improving the effectiveness of auditing resulting in a change in audit policy. Consequently the branch was restructured during the latter part of 1982, enabling it to provide the deputy minister with timely, independent evaluations of the effectiveness of financial and management control systems. And selected activities, performed by audit, but better performed by the accountable line manager, were transferred.

The following comments reflect the nature of work executed during the year.

Engineering Audit Office

Staff located in five regional offices and head office, is now responsible for auditing expenditures on ministry-owned and subsidized contracts. Regional offices reviewed and analysed

the adequacy of payment records for compliance with governing specifications, standards and regulations.

At head office, claims and design section staff were engaged in the auditing of MTC's and contractors' records related to engineering claims — in association with the Engineering Claims Office. Values ranged to a high of $1,148,000. In addition, they analysed MTC contract price negotiations and conducted design audits to ensure adherence to MTC requirements.

Head office staff, in payments and procedures groups, audited data in support of final payment on capital and municipal contracts; reviewed and approved supplemental estimates of cost which required audit certification prior to approval; and reviewed sundry payment certificates to ensure validity and accuracy.

Project & EDP Audit Office

A number of audits on the records of private enterprises were carried out relating to engineering claims from contractors and extra costs on contract work. Special agreement expenditures incurred by the Urban Transportation Development Corporation were also audited.

Guided by the long-term ADP audit plan and new computer systems being developed, reviews were undertaken on a number of major computer systems: direct deposit; Canadian Agreement on Vehicle Reciprocity (CAVR); a joint review with operational audit on the structural office where some of the computer systems were addressed and reported on during the year. And a compliance review was performed on data security involving the implementation of the software package, Resource Access Control Facility (RACF).

In addition, section staff continued to review and comment on the development of new systems: Vehicle Registration System Project (VRSP); Driver Study Research Project (DRSP); and Operations Management System (OMS). A review of the OMS was also initiated toward the end of the fiscal year.

Staff also lectured at various construction technical courses as well as conducting in-house training programs for development of engineering audit staff. They also performed special assignments, answered queries and provided assistance on engineering-oriented matters where their expertise was required. They also attended various meetings related to development and revision of construction specifications, standards, and procedures.

Effective January 1983, head office staff previously engaged in payment and procedure activities, together with those conducting engineering claims and negotiation analyses, were transferred to the contract management and engineering claims offices, respectively, where their activities will be continued. Other activities have been also realigned to address the requirements of systems-oriented auditing and reporting.

Operational Audit Office

Personnel are responsible for conducting audits of MTC's financial and management control systems, the Ministry of Northern Affairs and related crown agencies reporting to both ministers.

Audits conducted during the year included The Ontario Northland Transportation Commission, Highway Engineering Division, Office of Legal Services, Supply and Services Branch, the Consultant Assignment Process, Hamilton and Cochrane districts. Audits currently underway include the Ministry of Northern Affairs, Communications Division, and Central Region.

Municipal audit section staff performed transfer payment audits in municipalities throughout the province for both MTC and the Ministry of Northern Affairs. Effective January 1, 1983 this section was transferred to the Municipal Transportation Division where it performs the same function.

Financial Planning and Administration Branch

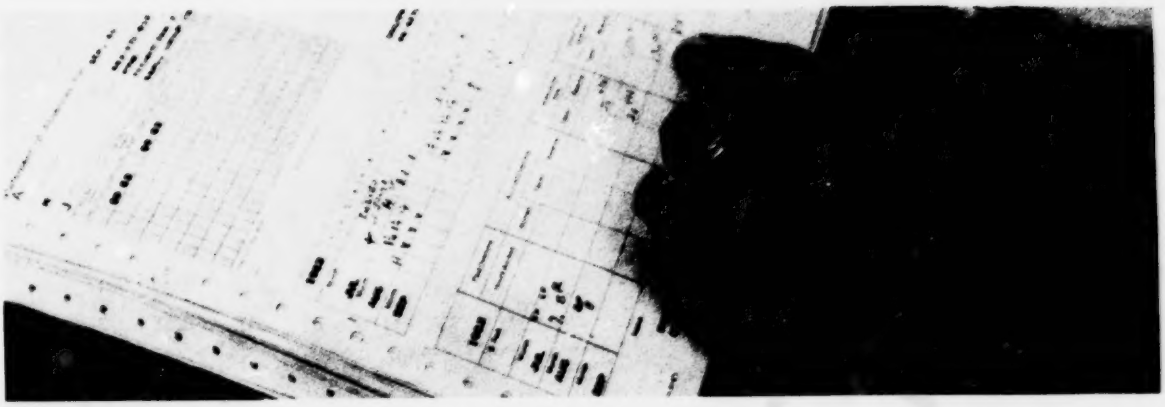
Budgetary Planning and Control Office

Personnel were responsible for acting as a liaison with Management Board of Cabinet, Ministry of Treasury and Economics, other central agencies and planning, evaluating, developing, controlling and analysing MTC's budget which consists of three sections:

The budgetary development section was primarily involved in acquisition of funding and staff to produce MTC's annual expenditure budget. It coordinated preparation of the expenditure and revenue estimates submission, represented the ministry throughout the resources allocation process and developed MTC's request for personnel and financial requirements in the ensuing fiscal year.

Budgetary control and analysis staff monitored expenditures and revenues, identified deviations and developed financial options for resolution. It also provided support to program managers in the in-year management of financial resources.

Budgetary planning and evaluation staff coordinated integration of the MBR concept with MTC's existing management processes.



Qualification Control Office

Staff maintained and used procedures to ascertain contractors' abilities to meet ministry prequalification standards, initiating, developing and implementing improvements in methods of prequalification criteria and ratings, monitored claims made by contractors and their resolutions.

They also mediated between subcontractors and prime contractors on claims made under the MTC Creditors Payments Act.

Chief Accountant's Office

Staff was responsible for all those functions usually associated with a large accounting organization — payroll, accounts payable and receivable, maintenance of financial records and preparation of financial statements.

There were three key areas of responsibility:

Expenditure office staff developed operational policies and procedures related to accounts payable, expense accounts, payroll and subsidies. It maintained and utilized procedures for the issuing and distributing of payroll cheques, processing of accounts, payable data for the issuing of treasury cheques and provision of expenditure information.

It also monitored expense account data to ensure compliance with regulations and the provision of statistical information.

Personnel from the revenue control office developed operational policies and procedures related to revenue accounting and cost sharing. They processed and recorded accounts receivable data and reconciled the concentrator account (Treasury Advance) for all local payments and advances.

They deposited all revenue received to the Consolidated Revenue Fund and all refund of expenditure to Treasury. As well, they reconciled all monies received by Treasury to the agent deposits for the Direct Deposit System of Safety and Regulation Division.

Staff also established accounts receivables for shareable agreements made by the ministry, compiled, prepared and distributed all statistical financial documents related to MTC activities.

Accounting and Administration head office staff provided a regional accounting function for all head office cost centres and MTC agencies as well as the Ministry of Northern Affairs.

Financial Systems Office

Personnel provided expertise in both computer and manual financial systems processes to aid managers in the effective management of financial resources. They were responsible for the introduction and upgrading of financial systems while continuing to maintain a high degree of efficiency within current systems.

This provided financial analysis and evaluation for in-year monitoring and control, performance assessment, financial information and reporting for managers.

Human Resources Planning and Services Branch

The past year saw the former Personnel Branch reorganized to become the Human Resources Planning and Services Branch. This change emphasized the ministry's increased awareness of the importance of human resources and the need to manage them more effectively to achieve organizational goals.

The reoganization addressed the need to ensure that both senior management and line management received appropriate information as part of the decision-making process. A major objective was to have the right number and the right mix of productive staff available where and when required.

In the service area, restructuring brought together under one manager the staffing and classification functions and established an expanded labor relations office.

There was increased focus on human resource planning, including the start of a long-range human resource plan, covering all program areas; more training of line managers in human resource management techniques and practices; the creation of a section to concentrate on high priority studies of significant current and emerging concerns related to human resources.

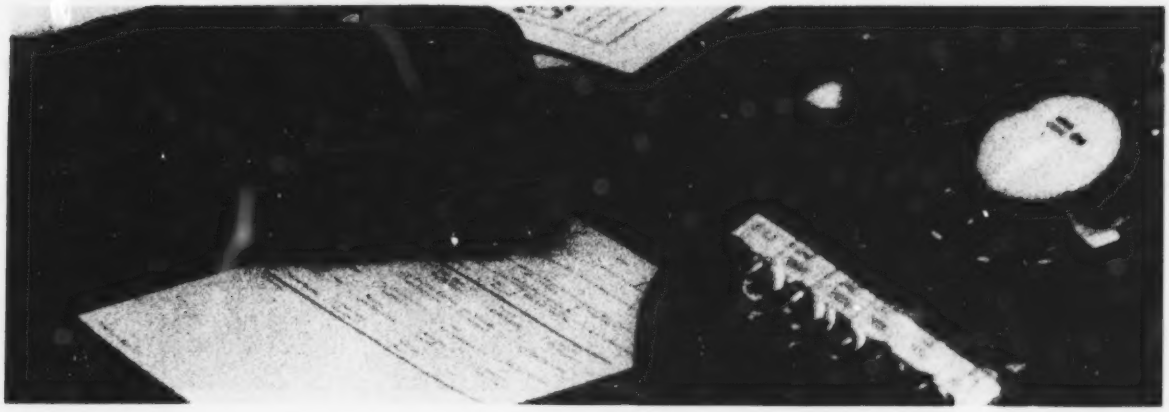
The Occupational Health and Safety Office also changed its reporting relationship and became part of the new branch. These and other initiatives better enabled staff to develop and implement future human resource programs sensitive to the economic and policy needs of MTC.

Benefits and Personnel Records Administration Section

Staff administered employee benefits and group insurance programs as well as maintaining human resource records and providing administrative support services to the branch.

Major changes during the year included introduction of paid maternity benefits and insurance for vision care and hearing aids.

They also provided advice and



information on pension matters to employees and their families and an information service to employees and managers for insured benefits; and administration and documentation of employees regarding classification and pay changes processed in the corporate integrated payroll, personnel and employee benefit system.

Initiatives and Development Section

Personnel developed and coordinated a comprehensive work program aimed at a wide spectrum of human resource planning and service issues.

They conducted special studies and surveys and devised innovative policies and procedures in relation to existing or evolving branch or ministry human resource issues. Since its inception in the fall of 1983, personnel have also been involved in a number of projects, including a review of the ministry summer student program and internal studies related to word processing and budgetary preparation.

Other activities included the conducting of employee opinion surveys, research of trends for the human resource position and prospects papers, and assisting in developing long-range human resource policies and principles.

Classification and Pay Administration Section

Staff initiated, developed and administered policies and procedures governing ministry classification activities to ensure a standard and equitable job evaluation system, and provided support to line managers on related matters.

Major changes affecting classification included the establishment of the GO ALRT organization; and a major change in the head office structure. These changes combined with a review of inclusion/exclusion of employees in the management group and the implementation of the government policy on credentialism, resulted in changes to classification for over 600 jobs.

Another major activity was further delegation of authority to the regions and, working with the Civil Service Commission, an extensive review of classification system for the clerical and office service groups.

Other activities included investigation and resolution of organization, classification and pay administration problems and grievances; and the administration and maintenance of classification and pay-related personnel information systems.

Human Resource Staffing Section

Personnel initiated, developed and administered policies and procedures governing ministry staffing activities, to ensure in MTC and MNA an equitable selection and placement of suitably qualified people with appropriate experience and skills required to meet the ministries' needs.

The major project was the Kingston relocation which involved transfer of a large number of staff to Kingston and placement of the employees who did not wish or were unable to relocate. Staff were also actively involved in the Summer Experience Program, to employ students in conjunction with the Youth Secretariat. It introduced a new job-posting system and produced a new "*How to Hire*" booklet for the use of line managers.

Major activities included a staffing service to fill permanent and temporary vacancies in head office; training on staffing matters; advice to the public and guidance to ministry personnel. Personnel also coordinated a surplus reassignment program and recruited multi-disciplinary graduates.

Staff Development and Training Section

Staff provided a comprehensive program of training and development as well as consultant advice to ministry management and staff regarding human resource development and related management issues. Its objectives were the promotion of organizational, development and employee competence.

During 1982 they facilitated implementation of management by objectives for all organizational areas reporting directly to the deputy minister. The unit continued in its implementation of four-tiered management training, with the senior seminar — Management '82, addressing human talent and achievement issues over the next decade.

Personnel also initiated a pilot office automation orientation program, illustrating MTC's commitment to provide its managers with the knowledge and skills they need to benefit from new opportunities and technologies.

Human Resources Planning Section

Section staff developed human resources planning processes and policies, collected and maintained relevant and current MTC employee data; provided administrative support to line managers, subcommittees and the human resources committee.

During the year, staff was heavily involved implementing Management Improvement Branch study recommendations. In particular, they aided the various human resources committees in changing their roles and

responsibilities and establishing stronger linkages between committees. Another major achievement of the section was the overhaul of the computer-based human resource inventory (HRI) which it maintained.

Staff Relations Office

Office staff managed a full range of labour relations services; interpreted and assisted with administration of existing policies; procedures and collective agreements; and developed strategy and MTC policies and philosophies in the labour relations area.

Last year saw introduction of a greatly expanded staff relations function at MTC. Headed by a manager, its major activities included administration of the collective agreement, providing policy direction on staff relations to ministry management; coordinating all aspects of grievance procedure and contract administration; developing and implementing a plan for training line managers; and improving their labour relations knowledge and skills, and participating in union negotiations.

French Language Coordinator

A full-time French-language coordinator, R.J. Bourque, was appointed for the ministry, and, during the year, took fundamental steps to implement the government's initiatives including:

- development of a French-language services policy, approved by SPC;
- the use of bilingual letterheads for all correspondence in ministry offices located in designated areas;
- several major programs affecting the public were developed and, in each case, publicity for these programs was made available in a bilingual format, or in separate French-English versions. Two of these were the "Plate to Owner" licensing system and the "Child Restraint Program."

In addition, MTC continued to be very active in its inter-provincial relations especially with the Ministry of Transport for the Province of Quebec.

During 1983 the ministry will endeavour to improve its French-language services to the public in designated areas as well as propose new initiatives.

Occupational Health and Safety Office

Office personnel provided service to employees and line managers through development of preventive occupational health and safety programs; identification of hazards and potential hazards in the workplace; and the education and training of staff in related health and safety matters to promote a healthy and safe working environment.

Achievements included initiation of a computerized program for all Workmen's Compensation Board (WCB) claims, and computerization of data related to the audiometric testing of employees. New initiatives were direted at the protection of MTC personnel on the highway and the use and control of toxic substances. Additionally, lead contamination seminars were conducted throughout the province, and a level II explosive course was provided.

Other activities included management of medical surveillance programs of employees exposed to designated toxic substances; administration of WCB claims and coordination of health and safety programs with the union through the joint senior/management health and safety committees.

Claims Office

Claims office staff initiates claims on behalf of MTC against third parties for damage to Crown property arising from accidents on the King's Highway; investigates and resolves, frequently by negotiation, claims made against MTC (and, in some cases, the provincial government) arising from a variety of circumstances, such as:

- accidents involving provincial government vehicles;
- accidents resulting in injuries to government employees, while on duty, by the action of a third party;
- accidents arising from alleged lack of maintenance to the King's Highway;
- accidents or emergencies on the King's Highway necessitating the presence of municipal fire departments;
- accidents or damages to third parties as a result of highway construction work;
- damage or flooding to third party property arising from alleged improper drainage;
- depletion of rural well water supplies or pollution of wells allegedly from highway construction work, winter road maintenance or sand/salt storage facilities;
- damage to private residences allegedly attributed to vibration from construction work or dynamite blasting;
- crop damage claims said to have been caused by weed spraying operations;
- spraying of automobiles or private property during mulching operations or highway zone-stripe painting; and,
- claims arising from incorrect computer information emanating from the Drivers and Vehicles Branch.

The handling of such claims entailed obtaining detailed reports from regional and district offices, from police, where applicable, and field investigations where necessary.

With regard to accidents involving provincial government vehicles, the staff handled such matters not only for MTC but the entire Ontario Government with the exception of the Ontario Provincial Police.

Staff instituted claims against the public for damage to Crown property such as bridges, light standards, guide rails, etc., and, where necessary, arranged for legal action to be taken against responsible parties through the Ministry of the Attorney General.

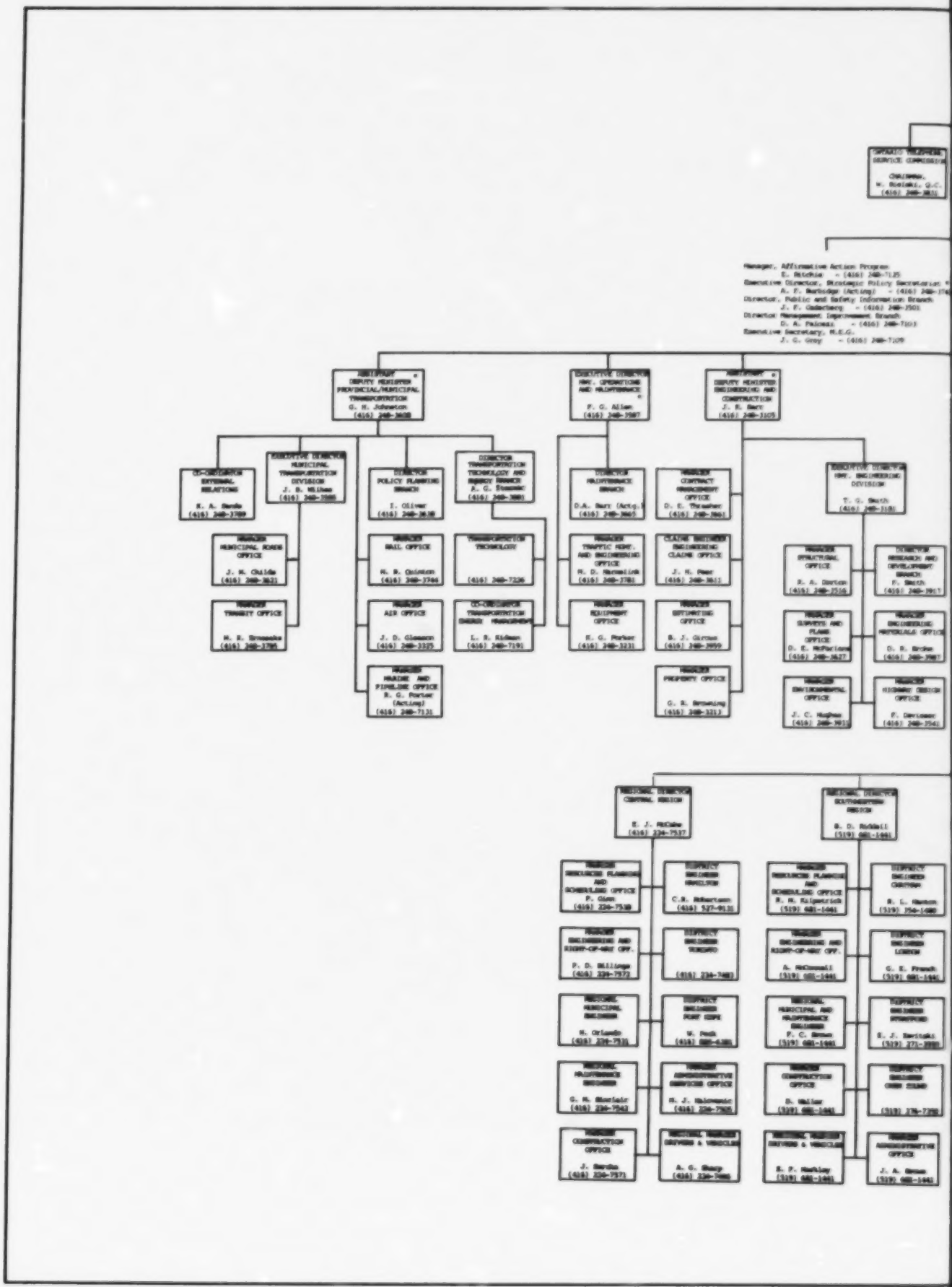
Legal Services

This office provides legal services to the minister and MTC staff. Legal officers are members of the Ministry of the Attorney General's staff seconded to MTC located at head office and in each of the regions except Thunder Bay.

Staff provide legal advice on all aspects of the ministry's programs and prepare legal documentation through which such programs are carried out, e.g. ministry contracts, claims, property acquisitions and disposals.

The office advises on legislation affecting the ministry and prepares and recommends amendments to the statutes administered by the MTC.

Legal office counsel provide ministry representations before administrative boards and tribunals with which MTC comes in contact, and conducts prosecutions for offences under the Ministry's statutes, e.g. The Highway Traffic Act and Public Vehicle Act.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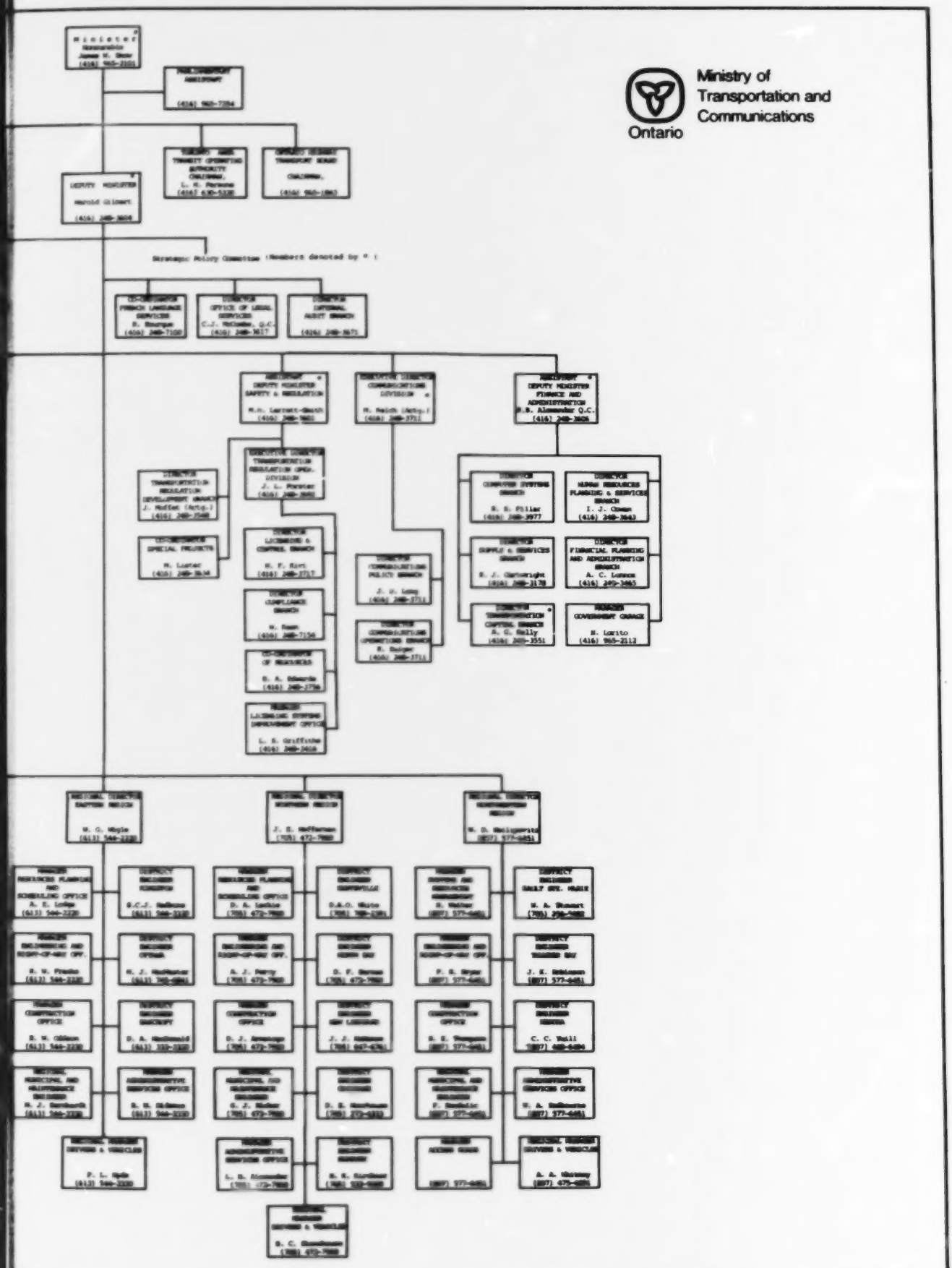
Ontario
Ministry of
Transportation and
Communications

CONVICTIONS REGISTERED UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1981	1982
7	Fail to register a vehicle	4,581	5,460
9(1)	False statement	75	59
9(2)	Fail to notify new address	2,009	2,363
10	Fail to have number plates	15,068	14,623
12	Violations as to number plates	2,959	2,188
13	Improper use of number plates	799	837
18(1)	No driver's licence or improper class	20,292	20,316
18(3)	Driving in breach of condition	409	1,053
19	Fail to produce operator's licence	23,576	26,026
21(1) a,b,c,d,e	Driver licence violation	508	620
22	Drive suspended in Ontario — Licence out-of-Province	19	26
23	Operation of motor vehicle by person under 16	143	117
24	Driving motor assisted bicycle under 16	5	0
30(2)	Unlawful possession of permit	14	4
30(3)	Unlawful possession of licence	118	135
35	Driving while licence is suspended H.T.A.	8,341	10,118
41	No garage licence	6	0
42	Record of wrecked vehicle violation	13	5
44	Improper light	11,056	12,639
46	Defective brakes	1,692	1,591
48	Faulty equipment (mirror, windshield, etc.)	445	531
52(1)	Defective — improper tires	41	68
52(2)	Improper attachment on wheels	15	7
55(1) a & b	Driver view obstructed	619	188
55(2)	Colour-coating obstructing view	108	152
55(3)	Obscured interior colour-coated windows	419	406
56(1) a & b	Windows obstructed	1,189	1,307
57	Excessive noise/smoke/fumes	18,176	15,112
58	No slow-moving-vehicles signs	62	75
61(2)	Radar warning device prohibited	754	731
62	Fail to have proper trailer attachments	1,027	1,033
65(2)	Unsafe vehicle	5	5
65(3)	Failing to submit to vehicle inspection	1,431	1,276
67	Drive unsafe vehicle	3,192	2,944
68(1)	Operate vehicle — fail to display device	835	847
69	Affix vehicle inspection sticker not MTC issue	5	4*
71	Certificate of mechanical fitness violation	41	30
87	No name of owner on commercial vehicle	1,086	1,040
88	Drive/ride motorcycle no safety helmet	2,005	1,861
90(2)	Remove/modify/inoperative seat belt assembly	1,086	1,194
90(3)	Failure/improper use seat belt assembly — driver	67,242	74,583
90(4)	Passenger — failure to ensure seat belt use	9,307	6,159
90(6)	Driver — failure to ensure passenger seat belt use	622	841
92(1)(2)(5)(6)(9)(10)	Excessive vehicle width/length/height	637	1,748
93(7)	Special permit violation	1,790	471
93(1)	Overload in excess of permit	33	8
93(2)	Fail to produce commercial ownership permit	65	27
93(4)	Spring Regulations — Overload	18	10
94(1 & 2)	Overhanging load/improper loading	1,982	2,004
98(1) (1b)	Overweight — tires	9	91
99(1)a	Overweight — Single axle (single tire)	120	45
99(1)b	Overweight — Single axle (dual tires)	1,566	1,806
99(1)c	Overweight — Dual axle	8,312	7,237
99(1)d	Overweight — Triple axle	250	203
99(2)	Overweight — Dual axle (single tire)	13	
99(3)	Overweight — Triple axle (single tire)	5430	
99(4)	Overweight — Single front axle (no verification)	1	126
99(6)	Overweight — Single front axle (exceed rating)	4	26

CONVICTIONS REGISTERED UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1981	1982
100(a)	Overweight — Two axle group	58	79
100(b)	Overweight — Three axle group	103	175
100(c)	Overweight — Four axle group	47	21
101(/)(abc)	Gross vehicle overweight	1,949	2,094
101(2)(3)	Fail to produce/violate authority	13	12
102(3)	Overweight during freeze-up	148	151
103	Overweight on axle Class B highway	6	7
104(1)	Overweight in excess of permit	4,069	4,094
104(2)(5)	Fail to carry/produce permit	1,508	1,647
104(7)(8)	Overweight — March/April	127	0
109	Speeding 50 km/h or more over the limit	10,326	8,464
109	Speeding more than 29 less than 50 km/h	94,221	82,276
109	Speeding more than 15 less than 30 km/h	293,806	263,688
109	Speeding under 16 km/h	384,088	420,863
111	Careless Driving	19,358	17,839
113	Unnecessary slow driving	189	186
114	Fail to obey signal of police officer	365	270
114(3)	Drive vehicle on closed road	0	217*
115	Fail to yield right of way	213	129
116	Fail to stop at through highway	53,267	56,946
118	Fail to obey yield sign	716	586
119	Fail to yield — from private road	6,465	6,995
120	Pedestrian crossover violation by driver	4,538	4,372
121(1)	Improper right turn	58	40
121(2)	Improper right turn at intersection	2,729	2,619
121(3)	Improper right turn — multi lane	4,827	3,418
121(4)	Improper left turn — across path of approaching vehicle	4,510	4,562
121(5)	Improper left turn at intersection	3,412	3,723
121(6)	Improper left turn — multi lane highway	1,294	1,469
122(1)	Fail to signal for turn	12,962	13,606
122(2)	Fail to signal-moving from parked position	3,225	3,639
122(4a)(4b)	Improper manual signal	8	9
122(5)	Improper directional signal	49	37
122(6)	Improper use of signaling device	82	73
122(7)(7a)(7b)	Fail to signal	102	135
123	Prohibited U-turns	238	182
124(5)	Disobey red signal light	48,364	50,708
124(7)	Disobey amber light	12,814	11,855
124(8)(9)(10)(11)	Flashing red-amber-green arrow	2,446	2,946
124(12)	Fail to give right-of-way to pedestrian	825	922
124(13)	Prohibited turn	23,705	29,583
124(25)	Disobey traffic signal	0	5
125(3)	Disobey portable lane control signal — red light	98	94
125(4)	Disobey portable lane control signal — amber light	28	39
126	Drive right side of multi-lane highway	257	227
127(1)(2)	Fail to share the road	2,289	2,183
127(3)	Fail to move to right	174	194
127(4)	Vehicle or horsemen overtaking others	450	461
127(5)	Horsemen or vehicles overtaking bicycles or tricycles	32	50
127(6)	Improper passing	30	38
127(7)(a)(b)	Improper passing	1,270	1,093
128	Driving left of centre of highway	1,651	1,498
129(1)	Passing to right of vehicle	26	69
129(2)	Unsafe passing to the right	3,155	3,012
130(1)	Fail to obey signs posted on paved shoulder	501	932
132	Wrong way on a one-way street	5,766	6,194
133(a)	Unsafe lane change	5,676	5,734
133(b)	Drive in centre lane of three lane highway	210	161
133(c)	Fail to drive in slow moving traffic lane	4,472	4,473
135(a)(b)	Improper driving on divided highway	863	643
135a	Backing on highway	0	604*

*New method of recording 1982

CONVICTIONS REGISTERED UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1981	1982
136(1)	Following too closely	15,409	15,236
136(2)	Following too closely in commercial vehicle	446	386
137(1)	Fail to yield to fire department vehicle, etc.	385	360
137(2)	Following a fire department vehicle	13	15
140	Crowding driver	678	743
141	Fail to stop for crossing (signal)	211	161
142	Drive through under or around railway barrier	289	190
143	Improper opening of vehicle door	193	279
144(1)	Improper approach or passing a stopped streetcar	130	147
144(2)	Pass streetcar on left side	29	34
145	Improper driving when approaching animals	2	2
146	Fail to use passing beam	1,049	887
147	Improper parking on highway	777	675
147(8)	No warning lights on commercial vehicle	32	22
147(9)	No flares	37	55
147(10)	Vehicle interfering with traffic	885	593
148	Racing	117	112
150(b)	Failure to stop school bus or public vehicle at railway crossing	26	26
151(5)(5a)(5b)	Fail to stop for school bus	2,260	2,715
151(6)	School bus: Fail to actuate signals	23	20
151(9)	Unlawful use of red signal lights on school bus	4	7
151(11)	School Bus: Failure to cover signals and signs	21	21
152(3)	Fail to obey school crossing stop sign	128	119
156	Littering highway	1,223	1,175
158(2)	Disobey legal sign	0	226*
159(2)	Fail to obey a direction sign	4,436	4,222
173	Fail to report an accident	4,166	4,144
174	Fail to remain at the scene of an accident	2,403	2,927
175	Fail to report damage to highway property	762	698
189a	Fail to stop for police	14	631
	Others	17,042	17,059
	TOTAL	**1,293,706**	**1,304,637**

*New method of recording 1982

SUMMARY OF CONVICTIONS

	1981	1982
Criminal Code	51,911	48,633
Highway Traffic Act	1,293,706	1,304,637
Regulation H T A.	11,171	10,456
Municipal Bylaws	29,204	27,469
Motor Vehicle Accident Claims Act	52	6
Compulsory Automobile Insurance Act	21,718	21,444
Public Commercial Vehicles Act	4,438	2,387
Public Vehicle Act	2	25
Motor Vehicle Transport Act	0	1,027*
TOTAL	**1,412,202**	**1,416,084**

*New method of recording in 1982

REGULATIONS UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1981	1982
484	School bus violation	51	40
469(14)(15)(16)(17)	Number plate violation	590	2,416
462(4)	Motorcycle violation	690	326
462(13)	Classified licence violation	221	475
462(19)	Fail to notify name/address change	2,637	2,318
462(20)	Fail to sign licence	761	844
469(21)	Only single beam headlight	23	10
477(4)	Improper parking	144	414
494(2)	Prohibited use of studded tire	208	158
	Others	5,846	3,455
	TOTAL	**11,171**	**10,456**

CONVICTIONS REGISTERED UNDER THE CRIMINAL CODE (CANADA)

SECTION	OFFENCES	1981	1982
203	Criminal negligence causing death	20	17
204	Criminal negligence causing bodily harm	9	9
233(1)	Criminal negligence	155	122
233(2)	Fail to remain	2,097	1,740
233(4)	Dangerous driving	1,802	1,435
234	Drive ability impaired	21,099	19,769
234.1	Roadside	288	524
235(2)	Fail to take breathalizer	3,450	3,387
236	Over .08 alcohol	22,219	21,660
238(3)	Drive while disqualified	772	0
	TOTAL	**51,911**	**48,663**

CONVICTIONS REGISTERED UNDER THE MOTORIZED SNOW VEHICLES ACT

SECTION	OFFENCES	1981	1982
2(1)	Drive or permit to drive unregistered vehicle	125	297
2(2)	Fail to register vehicle	0	0
2(3)	Fail to provide evidence of issue of permit (no plate)	0	3
2(7)	Fail to display registration number	148	218
2(8)	Fail to display evidence of permit	242	420
3(1)	Make false statement	11	1
3(2)	Fail to notify change of address	5	3
3(3)	Fail to notify change of ownership	0	35
4	(Plate) — Registration number obstructed	0	2
4(2)(a)(b)	Use defaced or altered plates	0	0
4(2)(c)	Improper plates	0	0
5	Drive on prohibited highway	55	90
6(2)	Drive in area not designated	6	0
7	Improper crossing of Highway	0	8
8(1)(2)	No operators licence driving along/across Highway	23	165
11(1)	Operate/permit operation uninsured vehicle	219	270
11(2)	No insurance	0	11
11(3)	Fail to produce evidence of insurance	15	61
11(4)	Produce false evidence of insurance	0	0
12(1)	Fail to report collision	20	26
12(2)	Police officer fail to forward report of accident	0	0
13(1)	Speeding	26	44
14	Careless Driving	44	61
15(1)	Fail to produce licence	36	68
16	Remove device	0	2*
16(1)	Improper muffler	0	0

CONVICTIONS REGISTERED UNDER THE MOTORIZED SNOW VEHICLES ACT

17	Towing on serviced roadway prohibited	0	2
18	No helmet	95	208
25(3)	Disobey signs on highway or public trail	4	38
	Others	65	41
	TOTAL	**1,144**	**2,074**

*New method of recording 1982

REGULATIONS (MOTORIZED SNOW VEHICLES ACT)

SECTION	OFFENCES	1981	1982
2	Disobey police officer	0	12
3	Fail to yield to vehicle on right	2	3
4	Disobey sign	15	8
5(1)(b)	Fail to yield — from adjoining property	0	5
5(2)	Improper crossing of roadway	0	0
6(3)	Improper left turn	0	0
7(1)	Fail to signal	0	2
7(2)	Fail to signal from stop position	0	2
7(3)	Improper signal	0	0
7(4)	Fail to signal stop	0	0
8(a)	U-turn-no clear view	0	1
8(b)	U-turn railway crossing	0	0
8(c)	U-turn hill-no clear view	0	0
9	Disobey traffic signal light	1	3
10(1)	Fail to share roadway	0	8
10(2)(b)	Passing when roadway not clear	1	0
11	Drive left of centre	2	0
12	Pass on right — not in safety	0	2
13	Following too closely	0	2
14(1)	Fail to stop at railway crossing	0	0
14(2)	Cross railway improperly	0	0
15(1)(a)	Park on roadway	0	0
16	Speeding	0	0
17	Improper or no lights	4	31
19(a)	Drive on Kings Highway (prohibited)	0	0
	Others	5	0
	TOTAL	**30**	**79**

CRIMINAL CODE OF CANADA (MOTORIZED SNOW VEHICLES)

SECTION	OFFENCES	1981	1982
233(2)	Fail to remain	0	0
233(4)	Dangerous driving	0	0
234	Impaired driving	5	9
235(2)	Fail to take breathalizer	1	1
236	Over .08 alcohol	2	3
238(3)	Drive while disqualified	0	0
	TOTAL	**8**	**13**

MUNICIPAL BYLAWS (MOTORIZED SNOW VEHICLES)

SUMMARY OF CONVICTIONS (MOTORIZED SNOW VEHICLES)

Motorized Snow Vehicles Act	1,144	2,074
Criminal Code of Canada	8	13
Regulations	30	79
Bylaws	0	0
TOTAL	**1,182**	**2,166**

SUSPENSIONS

COURT ORDERED SUSPENSIONS H.T.A.	1981	1982
Careless driving	342	329
Speeding over 30 mph (50 kmh)	219	237
Racing	11	13
Fail to remain	151	123
Drive while licence is suspensed (H.T.A. Section 35)	1,142	0
Mandatory suspension H.T.A. effective 19/11/81 (Section 35)	901	9,013
Other	96	259
TOTAL	**2,862**	**9,974**
DEMERIT POINT SYSTEM SUSPENSIONS		
6 & 15 demerit point accumulation	9,223	13,019
Fail to attend interview	1,031	912
As a result of interview	634	1,121
TOTAL	**10,888**	**15,052**
DISCRETIONARY SUSPENSIONS (H.T.A. – SECTION 30)		
Medical or physical condition	896	812
Fail to file medical report	1,028	2,234
TOTAL	**1,924**	**3,046**
SUSPENSION FOR:		
Motor Vehicle Accident Claims	2,776	1,410
Failure to pay judgment	1,123	1,171
Default in payment of traffic fine	66,002	76,507
TOTAL	**69,901**	**79,088**
MANDATORY SUSPENSION H.T.A. FOR CRIMINAL CODE OFFENCES		
Criminal negligence	182	147
Dangerous driving	1,783	1,424
Impaired	20,776	19,495
Failure to provide breath sample	3,386	3,347
Blood/alcohol .08	21,748	21,269
Fail to remain at scene	2,048	1,752
Drive while disqualified	768	0
Fail to provide (RDSI)	273	500
TOTAL	**50,964**	**47,936**
TOTAL OF ALL SUSPENSIONS	**136,539**	**155,096**

DEMERIT POINT SYSTEM	1981	1982
DRIVER IMPROVEMENT ACTIONS		
Advisory letters issued	144,304	129,104
Interviews conducted	35,099	37,016
SUSPENSIONS		
Drivers who reached suspension level through point accumulation (15 points)	6,968	5,498
Drivers who reached suspension level through point accumulation (6 points)	1,139	6,843
Drivers who reached suspension level through point accumulation (Second 15 point accumulation)	1,116	678
Drivers suspended for failure to attend interview	1,031	912
Drivers suspensed as a result of unsatisfactory interview	634	1,121
Total suspensions under point system	10,888	15,052

SUSPENSIONS

DRIVER MEDICAL REVIEW		
Total Cases Reviewed	89,663	86,782
Satisfactory Reports	86,085	84,709
Unsatisfactory reports as to class	2,604	1,162
Totally unsatisfactory	974	911
New Medical Waiver Programme (Effective March 1981)		
Waivers granted	126	203
Waivers denied	36	35
DRIVER OPTOMETRICAL REVIEW HIGHWAY TRAFFIC ACT		
Total Cases Reviewed	4,170	5,824
Satisfactory vision reports filed	1,495	2,697
Drivers to wear prescribed lenses while driving — no previous restriction	2,377	2,920
Unsatisfactory vision reports	298	207

Driver Control Statistics 1982 Summary

	1980	1981	1982
NUMBER OF LICENSED DRIVERS IN ONTARIO	4,993,531	5,123,177	5,247,177
CONVICTIONS RECORDED IN RESPECT TO THE OPERATION OF:			
Motor Vehicles	1,386,938	1,412,202	1,416,084
Motorized Snow Vehicles	775	1,182	2,165
TOTAL	**1,387,713**	**1,413,384**	**1,418,249**
TOTAL DRIVER LICENCE SUSPENSIONS APPLIED	**142,319**	**136,539**	**155,096**
MEDICAL AND OPTOMETRICAL REVIEWS CONDUCTED	**80,952**	**93,833**	**92,606**

Trends in Motor Vehicle Accidents

Death and Injury Rates Over the Period 1973-1982

From 1973 and the end of 1982, Ontario's population and the number of licensed drivers, motor vehicle registrations and motor vehicle accidents (with the exception of the years 1976, 1978, 1980 and 1982) were all on the rise. During the past ten years, traffic deaths reached a high of 1,959 in 1973 and declined to a low of 1,138 in 1982, the lowest annual fatality total since the year 1958 when 1,112 persons were killed.

In the past year, the number of deaths decreased 21.2% from the 1,445 deaths in 1981 to 1,138 deaths in 1982. The population grew from 8.63 million to 8.70 million. The death rate per 100,000 population decreased to 13.1 from 16.8 last year. The death rate over the past ten years ranged from 24.7 to 13.1. The 1982 death rate of 13.1 is the lowest since the year 1944 at which time the population was 3.96 million and the death rate was 12.6 per 100,000 population.

There was a decrease of 7,506 persons injured, from 100,321 in 1981 to 92,815 this year. The 1982 injury rate per 100,000 population decreased to 1067 from 1163.1 in 1981.

Last year, the number of motor vehicle accidents reported totalled 187,943 a decrease of 5.2% against the 1981 total of 198,372. There were decreases of 19.2% in fatal accidents and 21.2% in persons killed. The personal injury accidents and persons injured decreased 6.4% and 7.5% respectively.

The motor vehicle accident rate per one million kilometres travelled this year remained the same as last year at 2.8 and the fatal accident rate per 100 million kilometres travelled decreased to 1.5. The death rate per 100 million kilometres travelled decreased from 2.0 in 1981 to 1.7 this year. The 1982 death rate of 1.7 is the lowest since 1955.

The number of kilometres driven in 1982 was estimated at 66,284,098,000 a decrease of 6.5% from the 1981 figure of 70,905,834,000.

MINISTRY EXPENDITURE BY HIGHWAY

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		$	$
2	Lancaster-Windsor	6,365,226	3,953,108
3	Fort Erie—Windsor	9,746,954	2,086,232
4	Port Stanley—(Creemore)	1,623,326	1,279,005
5	Toronto—Paris	4,905,477	788,806
6	Hwy. 24—Tobermory	3,864,767	3,131,201
7	Ottawa—Sarnia	13,842,944	4,607,098
7A	Hwy. 115—Hwy. 12 (Manchester)	23,742	233,617
7B	Peterborough—Chemung Corners	—	71,401
8	Winona—Goderich	864,185	798,585
9	Hwy. 11—Kincardine	2,605	1,092,700
10	Port Credit—Owen Sound	469,098	1,268,417
11	Toronto—Rainy River	26,001,304	10,782,462
11B	At New Liskeard	20,098	68,913
12	Whitby—Midland (7)	1,792,448	863,139
14	Bloomfield—Marmora	6,164,319	292,618
15	Kingston—Carleton Place	49,715	557,413
16	Johnstown—Ottawa	3,003,827	453,413
17	Quebec Boundary—Manitoba Boundary	27,509,111	11,047,237
17B	At North Bay	—	5,526
18	Leamington—Windsor	429,021	240,845
19	Port Burwell—Tralee	713,396	588,228
20	Niagara Falls—Hamilton	600,727	451,793
21	Hwy. 3 (Morpeth)—Owen Sound	1,092,990	1,320,260
22	London—Hwy.7	—	214,137
23	Hwy. 7—Hwy. 9 Teviotdale	928,145	496,692
24	Hwy. 59—Collingwood	526,425	1,099,309
24A	Paris—Galt	—	44,874
25	Oakville—Hwy. 89	2,140,041	628,670
26	Barrie—Owen Sound	15,478	598,242
27	Toronto—Penetanguishene	2,313,709	1,037,589
28	Port Hope—Bancroft	731,372	925,468
29	Brockville—Arnprior (15)	98,221	428,570
30	Brighton—Havelock	1,722,328	211,917
31	Morrisburg—Ottawa	1,208,415	473,122
32	Gananoque—Hwy. 15	32,384	75,297
33	Kingston—Stirling	3,125,995	542,057
34	Hwy. 2 (Lancaster)—Hawkesbury	69,567	381,485
35	Hwy. 401 (Newcastle)—Dwight	5,198,918	777,837
35A	Fenelon Falls—Hwy. 35	—	14,197
36	Burleigh Falls—(Hwy. 7)	6,304	325,975
37	Belleville—Hwy. 7 (Actinolite)	6,905	189,649
38	Kingston—Hwy. 7 (N. of Sharbot Lake)	15,546	334,960
40	Blenheim—Sarnia	377,441	431,377
41	Napanee—Pembroke	110	1,043,227
42	Brockville—Westport (29)	6,417	223,378
43	Alexandria—Perth	—	897,595
44	Hwy. 17—Hwy. 29 (Almonte)	—	77,470
45	Cobourg—Norwood	1,301,398	236,759
46	Hwy. 7 (E. of Manilla)—Bolsover	2,475	117,747
47	Hwy. 48 (N. of Hwy. 7)—E. of Hwy. 12	26,263	300,227
48	Toronto—Hwy. 35 (Coboconk)	259,537	791,022
49	Picton-Hwy. 401 (W. of Desoronto)	3,830	105,359
50	Toronto—Hwy. 89	341,225	529,235
51	Rondeau Prov. Park—Jct. Hwy. 3	—	21,557
52	N. of Hwy. 97S—Hwy. 2	370,164	170,730
53	Hamilton—Hwy. 2 (Eastwood)	10,016	388,926
54	Cayuga—Cainsville	17,645	507,439
55	Hwy. 401—Niagara	922,524	161,251
56	Jct. Hwy. 3—Jct. Hwys. 53 & 20	48,432	224,789
58	Port Colborne—St. Catharines	390,860	272,777
58A	Port Colborne (Hwy. 58 to Jct. Hwy. 14)	1,870	—

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		$	$
59	Long Point—Shakespeare	42,083	540,920
60	Hwy. 17 (W. of Renfrew)—Huntsville	957,918	1,228,845
61	International Bdry.—Thunder Bay	—	273,933
62	Hwy. 14 (N. of Belleville)—Pembroke	2,603,758	1,246,941
63	North Bay—Quebec Border	—	384,151
64	Sturgeon Falls—Hwy. 11	1,756,133	808,697
65	Quebec Border—Matachewan	106,776	554,838
66	Quebec Border—Hwy. 65	31,911	445,061
67	Iroquois Falls—Hwy. 101	30,481	153,982
68	Hwy. 17 (Espanola)—S. Baymouth	—	54,688
69	Hwy. 12 (N. of Brechin)—Capreol	221,602	1,643,337
69B	Parry Sound	1,015	—
70	Springmount—Hepworth	—	77,100
71	Fort Frances—Hwy. 17 (E. of Kenora)	589,139	600,143
72	Hwy. 17 (Dinorwic)—Sioux Lookout	104,334	212,763
73	Port Bruce—Dorchester	7,711	183,571
74	Hwy. 3 (New Sarum)—Nilestown	—	104,712
75	Canborough to Bismark	508,793	—
76	Hwy. 3 (Eagle)—Hwy. 2	774,407	78,077
77	Leamington—Hwy. 401 (N. of Comber)	904,905	85,707
78	Hwy. 21 (Dresdan)—Wallaceburg	—	55,559
79	Hwy. 2 (Bothwell)—Hwy. 7	1,345,308	231,010
80	Hwy. 2 (S. of Glencoe)—Courtright	—	275,949
81	Delaware—Grand Bend	1,953	313,218
82	Hwy. 7 Jct.—Hwy. 21	2,226	—
83	Hwy. 23 (Russeldale)—Hwy. 21	—	209,216
84	Hensall—St. Joseph	21,625	87,687
85	Kitchener—Elmira	25,273	—
86	Guelph—Amberly	882,802	623,635
87	Harriston—Hwy. 86 (Bluevale)	—	171,022
88	Bradford—Hwy. 27 (Bond Head)	—	49,717
89	Hwy. 11—Hwy. 23 (E. of Palmerston)	31,836	663,308
90	Barrie—Angus	179	125,831
91	Stayner—Duntroon	—	35,630
92	Elmvale—Wasaga Beach	—	63,792
93	Hwy. 11 (E. of Barrie)—Waverley	591,319	372,072
94	Callander—Hwy. 17 (S. of North Bay)	—	47,519
95	Alexandria Point-Wolfe Island	44,228	47,164
96	Port Metcalf—W. End of Wolfe Is.	284,784	148,355
97	Hwy. 6 (Freelton)—Hickson	2,457,371	142,128
99	Dundas—Hwy. 24 (N. of Brantford)	58,805	42,633
100	Jct. Hwy. 401 to London	12,663	19,172
101	Quebec Border—Hwy. 17 (Wawa)	2,633,529	2,170,168
102	Thunder Bay—Sistonens Corners	2,256,912	165,068
105	Hwy. 17—Red Lake	3,305,784	601,191
106	Hwy. 28 (Dale)—Hwy. 2 (Welcome	—	18,757
108	Hwy. 17—Hwy. 639 (Quirke Lake)	1,004,990	168,900
112	Hwy. 11—Hwy. 66 (Swastika)	2,910	147,769
115	Newcastle—Peterborough	271,867	259,573
117	Jct. Hwy. 11—Jct. 35	—	187,593
118	Hwy. 11—Hwy. 169	60,902	517,130
121	Hwy. 28—Hwy. 35 (S. of Fenelon Falls)	5,411,404	571,118
124	Sundridge—Parry Sound	26,668	388,375
125	Hwy. 105—Red Lake	15,388	55,810
126	Hwy. 401—Hwy. 2 (London)	—	56,537
127	Maynooth-Hwy. 60 (E. of Whitney)	—	172,182
129	Thessalon—Chapleau	3,880,242	1,163,089
130	Port Arthur—Hwy. 61	—	54,465
132	Renfrew—Hwy. 41	—	156,582
133	Hwy. 33 (Millhaven)—Hwy. 401	—	42,753
134	Jct. Hwy. 7—Jct. Hwy. 28 (Lakefield)	—	67,934
135	Hwy. 401—Hwy. 2 (London)	4,318	31,231
136	Hwy. 24—Orangeville	—	83,455

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		$	$
137	Hwy. 401—Thousand Island Bridge	284	31,749
138	Cornwall—Monkland	7,270	214,911
140	Hwy. 3 (Port Colborne)—Hwy. 20	—	122,822
141	Hayes Corners Hwy. 69—Jct. Hwy. 11	4,487,095	249,988
144	Sudbury—Hwy. 101	2,306,551	1,466,747
169	Jct. Hwy. 12 to Jct. Hwy. 69	13,782	330,140
400	Toronto—Hwy. 12 (Coldwater)	11,488,432	2,807,666
401	(MCF) Quebec Border-Windsor	40,638,354	14,562,339
402	Hwy. 7—Blue Water	13,693,863	958,910
403	Burlington—Brantford	16,348,797	1,316,854
404	Toronto—Hwys. 7 & 12	7,671,019	235,377
405	QEW—International Br. (Queenston)	50,304	172,929
406	Hwys. 20-58—QEW	10,645,322	235,043
407	Jct. Hwy. 401 to Jct. Hwys. 35 & 115	10,727	—
409	Belfield Exway Hwy. 401—International Airport	4,667	415,354
410	Hwy. 401—Jct. Hwy. 7 & 10	1,845,337	182,466
416	Jct. Hwy. 2—Johnstown to Ottawa	148,146	—
417	Quebec Boundary—Ottawa	3,799,953	2,569,189
420	QEW—Rainbow Bridge (Niagara Falls)	68,819	108,457
427	QEW—Hwy. 401	12,840,400	6,459,990
451	(QEW) Toronto—Fort Erie	18,911,786	6,459,990
458	Ottawa Queensway	—	—
461	MacDonald Cartier Br. (Ottawa)	—	138,897
	TOTAL KING'S HIGHWAYS	309,562,400	114,229,468

SECONDARY HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		$	$
500	Hwy. 41 (Denbigh)—Bancroft	166,250	—
502	Dryden—Hwy. 17	36,546	608,870
503	Tory Hill—Kirkfield	78,006	559,143
504	Hwy. 620—Apsley	—	114,024
505	Hwy. 46—Uphill	224,370	84,666
506	Plevna—Hwy. 41	2,341,371	151,884
507	Hwy. 28 (Lakefield—Hwy. 503	80,144	272,908
508	Burnstown—Black Donald Mines	117,203	202,860
509	Hwy. 7—Snow Road Station	46,846	277,370
510	Magnetawan—Hwy. 124	—	13,374
511	Brightside—Hwy. 508	1,476,458	376,789
512	Eganville—Hwy. 60	1,466,739	210,678
513	Hwy. 132—E. of Hyndford	—	71,710
514	Hwy. 500—Hwy. 515	—	59,684
515	Hwy. 512—Combermere	512,801	200,881
517	Twp. Road (near New Carlow)—Hwy. 62	75	68,150
518	Sand Lake—Hwy. 69	434,408	396,331
519	Hwy. 121—Redstone Lake	2,337,179	65,776
520	Burk's Falls—Ardberg	63,232	265,005
522	Hwy. 11—West of Loring	5,272,331	548,264
523	Lyell Twp. Line—Hwy. 60	466,801	89,528
524	Hwy. 522—Hwy. 534 (E. of Restoule)	—	27,175
525	Gravenhurst Sanatarium Road	—	140,859
526	Hwy. 69—W. of Britt	—	94,896
527	Jct. Hwy. 11 & 17 Northerly	5,964,693	1,019,120
528	Wolseley Bay—Hwy. 64	813,718	183,548
528A	Pine Cove Landing—Hwy. 528	—	78,124
529	Hwy. 69—Hwy. 69 (Magnetawan River)	—	114,417
529A	Hwy. 529—Bayfield Wharf	71,678	54,688
530	Hwy. 519—Hwy. 35 (Carnarvon)	650	—

SECONDARY HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		$	$
531	Bonfield—Hwy. 17	—	19,367
532	Hwy. 11 (S. of Bracebridge)—Hwy. 69	—	106,197
533	Mattawa—Hwy. 63	695,160	415,222
534	Powassan—Restoule	2,472,282	269,973
535	Hwy. 64—Riviere Veuve	15,982	280,701
537	Hwy. 69—Hwy. 17 (Wahnapitae)	525	109,376
538	Algoma Miners Loop	—	38,886
539	Hwy. 64—Warren	44,187	320,418
539A	Hwy. 539—Tert. Road 805	18,325	44,496
540	Little Current—Meldrum Bay	1,043,776	675,341
540A	Hwy. 540—Barrie Island	88,830	58,049
540B	Manitoulin Island	—	32,902
542	Hwy. 68—Gore Bay	680,206	333,043
542A	Hwy. 542—Tehkummah	—	83,695
546	Hwy. 17—Mississagai Prov. Park	31,234	425,227
547	Hwy. 101—Hawk Jct.	—	27,299
548	Around St. Joseph Island—Hwy. 17	290,496	410,446
549	Lake Panache—Hwy. 17	111,731	54,688
550	Sault Ste Marie—Gross Cap	—	45,302
551	Province Bay—Hwy. 540	38,888	124,551
552	Hwy. 556—Twp. Road (E. of Hwy. 17)	988,131	93,226
553	Massey-Bull Lake Lodge	62,161	125,275
554	Hwy. 546—Hwy. 129	26,411	77,865
555	Magog Lake—Hwy. 557	92,045	96,690
556	Hwy. 17 (Heyden) N. Easterly	2,133,939	599,279
557	Blind River Northerly	392,449	121,980
558	Haileybury—Montreal River	77,291	128,912
559	Hwy. 69 Nobel—Hwy. 69	4,840	82,088
560	Hwy. 11—Hwy. 144 (S. of Gogama)	2,252,128	948,724
560A	Westree—Hwy. 560	—	42,587
561	Bruce Mines—Hwy. 638	—	125,549
562	Hwy. 11 (E. of Thornloe)—Hwy. 65	124,147	47,076
563	Batchawana—Hwy. 17	76,496	24,440
564	Blanche River Bridge—Hwy. 112	11,554	45,183
565	Pte Aux Pins—Hwy. 550	—	7,192
566	Matachenan—Ashley Mine	1,267,948	104,715
567	E. of Silver Centre—N. Cobalt	—	146,759
568	Hwy. 11—Kenogami	—	8,988
569	Hwy. 11—Hwy. 11 (S. of Englehart)	184,433	122,711
570	Sesekinoko—Hwy. 11	—	12,504
571	Hwy. 562—Earlton	61,388	25,460
572	Hwy. 11 Ramore—Hwy. 101	986,565	82,517
573	Charlton—Hwy. 11	—	85,757
574	Cochrane—Norembega	471,597	186,389
575	Jct. Hwy. 17—Jct. Hwy. 64	167,713	136,890
576	Hwy. 101—Kam-Kotia Mine	—	102,154
577	Hwy. 101—Iroquois Falls	10,927	117,555
578	Iroquois Falls—Hwy. 11	—	39,384
579	Cochrane—Gardiner	52,311	168,840
580	Hwy. 11—Lake Nipigon	160,092	50,958
581	Hwy. 11—Remi Lake	—	48,756
582	Hwy. 11 & 17—Loop at Hurkett	300	24,717
583	Mead—Lac Ste Therese	327,107	287,637
584	Hard Rock Mine—Nakina	3,283,071	361,103
585	Hwy. 11—Pine Portage	230,860	186,847
586	Hwy. 11—Lower Shebandowan Lake	—	22,237
587	Silver Islet—Hwy. 11 & 17	22,219	163,575
588	Stanley—Round Lake Road	47,932	430,457
589	Hwys. 11A & 17A—Dog Lake Road	153,256	220,826
590	Hwy. 130—Hwy. 588 (Nolalu)	12,755	106,310
591	Hwy. 589 Northerly	2,789	61,037
592	Hwy. 11 (Novar)—Hwy. 11	—	71,705
593	Hwy. 61—Hwy. 588 (Nolalu)	216,550	420,319

SECONDARY HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		$	$
594	Dryden—Hwy. 17	1,122,408	122,831
595	Hwy. 597—Hwy. 590	107,280	170,252
596	Kenora—N. of Minaki	7,527,694	128,064
596A	Kenora	662,303	—
597	Pardee—Hwy. 608	15,167	141,313
598	Hwy. 604—Hwy. 128 (N. of Kenora)	—	15,057
599	Ignace—Tert. Road 808	18,439	1,154,169
600	Hwy. 71—Rainy River	119,300	528,230
601	Hwy. 17—Dryden	4,453	98,302
602	Fort Frances—Emo	—	146,963
603	Hwy. 17—Dyment	—	14,306
604	Hwy. 17—Kenora Airport	19,996	31,022
605	Hwy. 17—Eton—Rugby	35,128	44,462
607	Hwy. 69—(Big Wood—Hwy. 64)	—	74,412
607A	French River—Hwy. 607	—	24,873
608	Hwy. 61—Hwy. 595 (S. Gillies)	6,712	121,803
609	Hwy. 105—Clay Lake	—	53,085
610	Hwy. 67—Hwy. 101 (Hoyle)	87,166	94,807
611	Hwy. 602 (Sherwood) Northerly	—	109,001
612	Hwy. 103 (Mactier)—Hwy. 69	—	17,985
613	Hwy. 602—Lake Despair	933	129,236
614	Hwy. 17—Manitouwadge	—	265,831
615	Hwy. 17—Burditt Lake	—	84,160
616	Hwy. 101—Palomar	—	12,815
617	Hwy. 11 (Stratton)—Hwy. 600	62,792	105,495
618	Red Lake—Madsen	63,903	37,847
619	Hwy. 11 (Pinewood)—Hwy. 621	3,930	197,348
620	Hwy. 62—Hwy. 28 (Apsley)	9,680	180,837
620A	Hwy. 28—Hwy. 620	—	2,227
621	Hwy. 11—Lake of the Woods	225,233	206,254
622	Hwy. 11 (Atikokan) Northerly	—	83,649
623	Hwy. 11—Sapawe	361	19,309
624	Hwy. 11—Larder Lake	390,036	267,103
625	Caramat—Hwy. 11	—	115,474
626	Jct. Hwy. 17 to Marathon	1,337	17,246
627	Heron Bay—Hwy. 17	—	37,395
628	Red Rock—Hwys. 11 & 17	—	31,669
629	Timmins—Timmins Airport	16,312	40,314
630	Kiosk—Hwy. 17	—	197,080
631	Hwy. 17—Hwy. 11	4,298	787,438
632	Hwy. 118—Rosseau	—	48,422
633	Hwy. 11—Kawene	—	23,173
634	Smooth Rock Falls—Fraserdale	1,028,851	359,792
635	Hwy. 17—Ottawa River Bridge	—	13,301
636	Hwy. 11—Frederick House	—	23,227
637	Hwy. 69—Killarney	1,704,415	319,294
638	Dunns Valley—Echo Bay	126,955	221,872
639	Hwy. 108—Hwy. 546	8,433	109,376
640	Hwy. 571—Earlton Airport Entrance	—	12,355
641	Hwy. 17—Pellatt	37,219	70,178
642	Hwy. 599—Sioux Lookout	—	357,335
643	Hwy. 584—Twp. Road to Cavell	19,176	208,864
644	Hwy. 69 (Pte. Au Baril) Westerly	—	54,688
645	Hwy. 529—Bing Inlet	—	62,423
646	Pickle Crow—Central Patricia	—	59,871
			191,754
647	Hwy. 17—Blue Lake Prov. Park	—	70,179
648	Dyno Mine—West Jct. Hwy. 121	5,972	163,620
649	Bobcaygeon—Hwy. 121	852,818	78,581
650	O.N.R. Right-of-way—Hwy. 12	—	39,026
651	Hwy. 101—Missanabie	—	255,504
652	Wade Lake—Kwy. 574	10,997	85,140
653	Portage Due Fone Bridge Hwy. 17	—	30,449

SECONDARY HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION $	MAINTENANCE $
654	Hwy. 11—Nipissing	—	209,913
655	Timmins—Ward Kidd Twp. Boundary	503,122	338,783
656	Hwy. 533 Northerly	186,498	21,541
657	Gold Pines—Hwy. 105	116,421	19,902
659	Hwy. 604—Hwy. 128	—	76,271
660	Bala—Hwy. 103	—	—
661	Gogama—Hwy. 144	—	22,260
663	Hwy. 11 (W. of Hearst) Northerly	—8,212	24,581
664	Hudson—Hwy. 72	200	52,971
665	Hwy. 17—Richan	—	73,560
666	Kenora—Redditt	98,121	117,815
667	Hwy. 129—Sutton	—	165,307
	TOTAL SECONDARY HIGHWAYS	56,680,635	26,288,312

HIGHWAY NUMBER	LOCATION	CONSTRUCTION $	MAINTENANCE $
	TERTIARY ROADS		
800	Hwy. 11 & 17 N. of Whistle Lake	—	320
801	Hwy. 11—Namewanikan River	—	64,781
802	Hwy. 11—Burchell Lake	—	47,029
803	Hwy. 575—(Hwy. 101-3 mile South)	—	15,470
804	Hwy. 105 (lower Manitou Falls)	—	29,956
805	Hwy. 539A (River Valley)—Pond Lake	—	109,041
808	Hwy. 646—Otosilwin River	—	232,683
809	Hwy. 564—End of Highway	—	16,747
810	Hwy. 553—Richie Falls	—	176,293
811	Tertiary Road 800 northwesterly	—	237,514
812	Manitou Road-Hwy. 11 northerly	47,495	—
813	Riding Stable Access Road	400	—
	TOTAL TERTIARY ROADS	47,895	929,834
	ACCESS, INDUSTRIAL & ARTERIAL ROADS		
708	Marchington Lake Road	533,999	97,693
709	Anaconda Road	—	14,805
751	Arterial Road—Jane St. S'ly to S. Queens Drive	271,640	—
758	N. of Hwy. 17 to Armstrong/Hurkett	—	—
760	Detour Lake Access Road	16,704,528	—
771	Kodak Access Road	948,303	—
773	Garden Lake Road	—	88,862
784	Arterial Road—Lawrence Ave. S'ly to Trethewey Drive	2,208	—
785	Bending Lake Access Road	1,812,392	—
792	Hwy. 17—Dubreuilville Townsite	—	59,578
795	Sherman Mine Road	—	2,199
799	Caramat—Manitouwadge Road	—	76,680
	TOTAL ACCESS, INDUSTRIAL & ARTERIAL ROADS	20,273,070	339,817
	UNINCORPORATED TOWNSHIPS		
2	Indian Reserves	114,581	207,049
7	Special Settlers	276,890	95,823
9	Local Roads Boards	1,649,126	4,519,155
99	Statute Labour Boards	178,648	133,257
	TOTAL UNINCORPORATED TOWNSHIPS	2,219,245	4,955,284
	SPECIAL PROGRAMS		
450	Other Ferry Services	—	3,300,225
704	Welland Canal Tunnel	7,820	—
731	Sudbury By-Pass	7,197	—
735	Kitchener Waterloo Expressway	571,141	383,656
762	Welland Canal Tunnel	—	48,006

HIGHWAY NUMBER	LOCATION	CONSTRUCTION $	MAINTENANCE $
	SPECIAL PROGRAMS		
765	Townline Road Tunnel	–	22,959
797	Airstrip Development	4,220,183	2,263,766
952	Sidewalks	95,015	–
955	Commuter Rail Service	16,688	–
7087	E.C. Row Expressway	7,752,469	350,417
7118	Brantford Expressway	72,488	21,915
7180	E. Metro Transportation Corridor	–	–
7182	Woodstock By-Pass	173,337	–
7222	Caradoc Side Road 20	253,906	–
8905	Lands & Buildings	4,156,352	2,487,767
8954	Weigh Scales	11,370	328,806
	Development Roads	8,098,442	–
	Connecting Links	15,343,986	1,914,576
	TOTAL SPECIAL PROGRAMS	40,780,394	11,122,093
	HIGHWAY TOTALS		
	Sundry Unallocated, District Office Administration, Engineering Buildings, Inventory Charges, etc	(80,319,719)	34,358,324
	TOTAL EXPENDITURE	**349,243,920**	**192,223,132**

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